

One Fish, Two Fish, Few Fish, No Fish:

*Regional Fisheries Management Organisations, IUU Fishing and
High Seas Fisheries Management*

By Aaron Irving



1 From the Window of a Sasbimi Restaurant - Incheon, South Korea. Picture by Aaron Irving 2004

A Thesis

Submitted to the Victoria University of Wellington in Partial Fulfilment
of the Requirements for the Degree of Master of International Relations
(MIR)

School of History, Philosophy, Political Science and International
Relations

Victoria University of Wellington

2011

내가 나의 작은 아름다운 가족에게[우리
남영 과 토마스] 이 논문을 바칩니다.¹

¹ *I dedicate this thesis to my family [Nicole and Thomas].*

ABSTRACT

The World's fisheries are in a desperate state, they have been utilised to a point where a majority of the fisheries resources are fully exploited. In addition to overfishing, the responsibility of the sad state of affairs of the world's High Seas' fish stocks can be put down to inefficient management. The high seas fisheries regime is dominated by two powerful, tried, tested and consented to norms: the *principle of freedom of fishing on the high seas* and the *principle of exclusive flag state jurisdiction over flagged vessels on the high seas*. These Grotius norms (unintentionally) obstruct effective and meaningful high seas fisheries management, and have enabled unscrupulous states and actors to take advantage of the lacunae created by the UNCLOS High Seas fisheries framework and engage in IUU fishing which has resulted in a tragedy of the high seas commons. Furthermore these norms have a 'hobbling' effect on RFMOS and coastal states alike, and leave them almost powerless to ensure flag-state compliance with their sustainable fishing measures without the consent of the flag state, and totally unable to enforce its measures directly on that flagged vessel. Thus in the absence of an express reference to the superiority of coastal state rights over those of high seas fishing states, freedom of high seas fishing prevails. However the international community armed with weaker UNCLOS obligations of conservation and co-operation and have fought the good fight, and in lightening speed have constructed a normative framework that is additional to but consistent and complimentary with the UNCLOS regime. With the use of port state measures, voluntary instruments that codify responsible fisheries practice, surveillance and the denial of the right to land IUU fish – the fight is gradually beginning to turn in favour of the international community.

Hutia te rito o te harakeke.

Kei hea te komako e ko?

Ki mai nei ki ahau. He aha te mea nui ki tenei ao?

Maku e ki atu. He tangata, he tangata, he tangata.²

Traditional Maori Proverb

² “If you were to pluck out the centre of the flax bush, where would the bellbird sing?
If you were to ask me “What is the most important thing in the world?” I would reply, “That it is people, people, people.””

TABLE OF CONTENTS

I	INTRODUCTION	6
II	THE INTERNATIONAL COMMONS	13
	<i>A. A HISTORICAL PERSPECTIVE</i>	13
	<i>(i) Grotius</i>	14
	<i>(ii) Selden</i>	16
	<i>(iii) Res Nullius</i>	17
	<i>(iv) Res Communis</i>	18
	<i>B. THE TRAGEDY OF THE COMMONS</i>	19
	<i>(i) Overcoming the Tragedy of the Commons</i>	20
III	CONTEMPORARY HIGH SEAS GOVERNANCE	31
	<i>A. FACTORS THAT SHAPED THE CONTEMPORARY FRAMEWORK</i>	32
	<i>(i) Constructivism</i>	32
	<i>(ii) Path Dependence</i>	33
	<i>(iii) Positivism</i>	34
	<i>(iv) Politics</i>	35
	<i>B. THE LEGAL FRAMEWORK</i>	36
	<i>(i) The Principle of Freedom Fishing on the High Seas</i>	37
	<i>(ii) The Principle of Exclusive Flag State Jurisdiction on the High Seas</i>	39
	<i>C. “RFMOs” - THE ‘HOBBLED’ MANAGEMENT MECHANISM?</i>	40
IV	IUU FISHING	45
	<i>A. IUU FISHING ON THE HIGH SEAS</i>	46
	<i>(i) What is IUU Fishing?</i>	46
	<i>(ii) What is the Impact of IUU Fishing?</i>	48
	<i>(iii) What are the Drivers of IUU Fishing?</i>	49
	<i>B. OPEN REGISTRIES AND FLAGS OF CONVENIENCE</i>	52
V	SUBSEQUENT INTERNATIONAL & REGIONAL INITIATIVES	56
	<i>A. HARD LAW INSTRUMENTS</i>	59
	<i>(i) The 1993 FAO Compliance Agreement (“Compliance Agreement”)</i>	59
	<i>(ii) The 1995 United Nations Fish Stocks Agreement (UNFSA)</i>	60
	<i>B. SOFT LAW INSTRUMENTS</i>	64
	<i>(i) The 1995 Code of Conduct for Responsible Fisheries</i>	64
	<i>(ii) The 2001 International Plan of Action for IUU Fishing</i>	65
	<i>C. TRADE & PORT STATE MEASURES TO COMBAT IUU FISHING</i>	68
VI	CONCLUSION	74
VII	BIBLIOGRAPHY	80
VIII	GLOSSARY OF ACCRONYMS & ABBREVIATIONS	91
	ANNEX I – UNCLOS ARTICLES THAT PERTAIN TO HIGH SEAS FISHING	93
	ANNEX II – LIST OF HIGHLY MIGRATORY SPECIES	103

I INTRODUCTION

Traditionally the oceans have been seen as a “*vast virtually inexhaustible commons*” and are under significant stress from the pressures being “*exerted on ocean ecosystems through over fishing, pollution, and environmental and climate change.*”³ The World’s fisheries are in a desperate state, they have been utilised to a point where a majority of the fisheries resources are fully exploited. According to a recent National Geographic Article; “*fishermen remove more than 170 billion pounds (or 77.9 million tonnes) of wildlife a year from the seas compared to 16.7 million tonnes of fish in 1950.*”⁴ According to Myers and Worm, in 2003 more than 90% of the world’s large predatory fishes, such as tuna, swordfish and marlin have been lost to industrialised fishing.⁵ If we continue to harvest the world’s oceans at this rate there will be a worldwide collapse of fisheries. Daniel Pauly solemnly wrote;⁶

“Unfortunately, it is not just the future of the fishing industry that is at stake, but also the continued health of the world’s largest ecosystem. While the climate crisis gathers front-page attention on a regular basis, people—even those who profess great environmental consciousness—continue to eat fish as if it were a sustainable practice [...] In the past 50 years, we have reduced the populations of large commercial fish, such as bluefin tuna, cod, and other favourites, by a staggering 90 percent. One study, published in the prestigious journal Science, forecast that, by 2048, all commercial fish stocks will have “collapsed,” meaning that they will be generating 10 percent or less of their peak catches. Whether or not that particular year, or even decade, is correct, one thing is clear: Fish are in dire peril, and, if they are, then so are we.”

The picture is grim and with a few notable exceptions in places with well-managed fisheries; Alaska, Iceland and New Zealand, biodiversity [that is the number of different fish swimming the seas] is a fraction of that of a century ago. Furthermore, and what is more important to us here in New Zealand and our Pacific neighbours is “*with many northern hemisphere waters fished out, commercial fleets have steamed south, overexploiting once teeming fishing [southern] grounds.*”⁷

To understand fishing on the high Seas it is crucial to understand how fishes are distributed in the ocean relative to areas that fall under coastal state jurisdiction and areas that are subject only to flag state jurisdiction [the high seas]. The generalisation that fish are not usually abundant in the areas of the high seas beyond the Exclusive Economic Zone (“EEZ”) (which is true for the bulk of the global fish catch) is not always valid.⁸ However what is known that is that many migratory species like Bluefin Tuna (*Thunnus thynnus*), Southern Bluefin Tuna (*Thunnus maccoyii*) or Yellowfin Tuna (*Thunnus albacores*) are found in fishable quantities in waters beyond coastal state jurisdiction. Even though the FAO estimates that about 80% of fish landed are caught in waters that fall within coastal state jurisdiction, not all of these coastal states have effective control over their waters; Kiribati for instance has a colossal EEZ and only one patrol boat that

³ Marcus Haward & Joanna Vince; *Oceans Governance in the Twenty-first Century: Managing the Blue Planet*, Edward Elgar Publishing Ltd, Cheltenham, UK. P 9.

⁴ Paul Greenberg, “Time for a Sea Change” National Geographic Magazine (October 2010) 78: 80-81.

⁵ R. A Myers and B. Worm, “Rapid Worldwide Depletion of Predatory Fish Communities” [2003] *Nature* 423: 280-283.

⁶ Daniel Pauly, “Aquacalypse Now: The End of Fish” *The New Republic* (September 28, 2009).

⁷ Commonwealth Foundation, “From Kilifi to Windhoek, Raising Awareness and Tackling Illegal, Unreported and Unregulated (IUU) and Over-Fishing” [2008] *Regional Fisheries Series*, No.1, p 4

⁸ William T. Burke, “Compatibility and Precaution in the 1995 Straddling Stock Agreement” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) pp105-126, 107.

often lacks fuel.⁹ Furthermore many coastal states fail to exercise effective management of fishstocks in their jurisdictional waters, with over capitalisation, fishing subsidies, overfishing and excessive bycatch [especially of straddling stocks and highly migratory species] that undermines the sustainable management practice of neighbouring states.

This unsatisfactory jurisdictional situation has resulted in ‘enormous economic loss, on top of stock reductions that has resulted in the closure of significant traditional fisheries.’¹⁰ Add to this situation the highly mechanised fishing fleets of some distant water fishing nations (“DWFNs”) who have the capacity to stay and sea for months at a time, and to fish enormous quantities literally parked just off the boundaries of well managed EEZs harvesting straddling and highly migratory fish that have the habit of straying beyond the man-made EEZ boundary.¹¹ However any attempt at regulating fishing beyond EEZ boundaries must not only take into account the nutritional and economic aspects of the fishing states, but also the status of the high seas and the fish within, remaining common property, subject only to property rights when removed from the commons.¹²

This inefficient unsustainable use of the commons is what Hardin in 1968 referred to as a tragedy.¹³ Gavouneli points out that;¹⁴

“Indeed, exploitation in that setting does not simply denote the management of the resource but also, much more urgently, the preservation of that valuable commodity for the benefit of the present and future generations. In the decentralised system of the international community, any such law-making exercise instantly requires as additional element of difficulty and thus uncertainty – and immediately raises the question of proper and effective implementation.”

In order to combat Hardin’s tragedy of the commons, attempts were made by some coastal states to extend coastal state jurisdiction beyond 200nm as stipulated by United Nations Convention on the Law of The Sea (“UNCLOS”)¹⁵. This was met with fierce opposition¹⁶ – it is arguable that the reassertion of high seas freedoms with respect to fisheries in UNCLOS could be considered

⁹ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299.

¹⁰ William T. Burke, “Compatibility and Precaution in the 1995 Straddling Stock Agreement” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) pp105-126, 108.

¹¹ Malcolm Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 680; *Fisheries Jurisdiction Case*, (Spain v Canada), (*Estai* Case), 4 December 1998, (1998) ICJ Reports 432 – where rather than rely on RFMOs to **encourage** states to be compliant with fishery regimes “Canada adopted a different approach by asserting its right to enforce its conservation and management measures over Greenland turbot (or halibut) over the Grand Banks in the Atlantic Ocean. Canada claimed that the Spanish Boat fished the banks illegally and undermined its conservation measures pursuant to 64-68 of UNCLOS and arrested the Spanish fishing vessel (the *Estai*) on the high seas – Spain (the EU) subsequently brought a case against Canada – which the Court was unable to consider. See also Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 97.

¹² Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 97; also see R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999), p281.

¹³ Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

¹⁴ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 98.

¹⁵ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M 1245 (1982).

¹⁶ Malcolm Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 680.

as *quid pro quo* by non-coastal states for giving up their rights to the waters that have since become EEZs which is also in accordance with UNCLOS. DWFNs were adamant that they would not give their right to fish the high seas freely and the right to exclusive jurisdiction over their flagged vessels that were doing the fishing. Therein lies the difficulty in codifying and developing an international high seas fisheries regime and instituting high seas governance.

How can we deal with our colossal taste for sea food? What's the next step in reducing our global SeafoodPrint? Dr. Pauly and Enric Sala say that a global treaty with seafood-consumption targets would be a good start.¹⁷ However the problem is complicated and although it's common knowledge that there are simply too many boats chasing too few fish, the problem of over-fishing the high seas is inextricably linked to many other factors; centred on a game of cat and mouse between RFMOs¹⁸ and IUU fishers¹⁹ where the former has the functional jurisdiction to exercise governance in the absence of government, and the latter able to hide behind lacunae in that high seas governance framework.²⁰

IUU fishing not only has an impact on high Seas fishstocks it also has a “*direct impact on coastal communities and artisanal or subsistence fishermen whose livelihoods are at stake as a direct result of the global collapse in fish stocks.*”²¹ Furthermore there are significant drivers in addition to the lack of enforcement jurisdiction by RFMOs against boats engaged in IUU fishing, one significant driver is that ‘IUU fishing pays.’ For example one large sushi-grade migrating trans-boundary fish like bluefin tuna can reach up to USD\$300,000 on the Japanese market.²² The economic gain from such transactions is such that it is often within a fisher's best interests [even that of a state] to engage in IUU fishing. It is no surprise that scientific communities continue to file contradictory arguments and figures to RFMOs determining whether this is a small or a widespread shortage.²³ Yet RFMOs are under constant scrutiny and receive much criticism on their inability to manage global fisheries – some commentators emotively accuse RFMOs of deliberately mismanaging fishstocks or being incompetent;²⁴

*“Astonishingly, [...] some Regional Fisheries Management Organisations eg, the Indian Ocean Tuna Commission continue to think that fish stocks are unlimited and that our oceans will be able to cope with an exploding world population. A fatal error indeed...”*²⁵

RFMOs by exercising a governance function have overtime become the primary mechanism by which the high seas are regulated. This is no easy feat in the absence of government – that is as sub-regional or regional fisheries organisations that in accordance with UNCLOS have the functional jurisdiction to regulate high seas fisheries but lack any of the *hard* jurisdictions by

¹⁷ The Beacon, “New Study Measures Nations ‘SeafoodPrint’” *The Beacon (Blog)*, (Posted Wed, Sep 22, 2010).

¹⁸ Regional Fisheries Management Organisations (“RFMOs”).

¹⁹ Illegal Unreported and Unregulated Fishing (“IUU”).

²⁰ Commonwealth Foundation, “From Kilifi to Windhoek, Raising Awareness and Tackling Illegal, Unreported and Unregulated (IUU) and Over-Fishing” [2008] *Regional Fisheries Series*, No.1, p 4.

²¹ *Ibid*, p 5.

²² Ben McIntyre, “The fish that's too tasty to live”(Wednesday, August 4, 2010) *The Dominion Post*, B5.

²³ P.A Nickler, “A Tragedy of the Commons for Coastal Fisheries: Contending Prescriptions for Conservation, and the Case for the Atlantic Blue Fin Tuna (1998-1999) *B.C. Environmental Affairs Review*, 26; 555.

²⁴ Commonwealth Foundation, “From Kilifi to Windhoek, Raising Awareness and Tackling Illegal, Unreported and Unregulated (IUU) and Over-Fishing” [2008] *Regional Fisheries Series No.1*.

²⁵ *Ibid*.

which to promote compliance with sustainable measures and regulations, obviate inconsistent flag state policies, or even enforce high seas fishing regulations in the face of flag states who thumb their noses at RFMO conservation measures.²⁶ Furthermore the job of the RFMOs is made more challenging still by having been forced to rely on flag states to enforce compliance of vessels flying their flags on the high seas due to the principle of exclusive flag state jurisdiction.²⁷ RFMOs such as CCAMLR,²⁸ struggle to control over-exploitation of certain species of fish because of non-cooperation by some nationals of its member states.²⁹ And what of non-members and DWFNs who are able to fish without prejudice on the high seas that hide behind the principle of freedom of fishing?³⁰ And then there are the irresponsible fishers of RFMO member-states who's States do comply with RFMO measures, who simply in order to circumvent the whole sustainable management process re-register their vessels to non-member states who have open registries and fish the high seas again with impunity, in accordance with UNCLOS flying a flag of convenience.³¹

This dissertation will assess the ability of Individual States and RFMOs to manage high seas fisheries, in the face of a high seas normative framework that not only limits the RFMO toolbox, but arguably exercises an adverse impact on any meaningful high seas resource management. In order to illustrate the nature and strength of this negatively impacting normative framework it is necessary to charter the course of high seas management historically and normatively, and address how these norms not only came about, but how they enable or impede the high seas governance strategies and mechanisms of RFMOs and of sustainably minded states. Although RFMOs are very much a subject of this dissertation, assessing the nature of the RFMOs toolbox, and the actual performance of RFMOs themselves is not part of this study. Rather, this study will critically assess various strategies and initiatives implemented by interested states alike in response to an apparent inability for RFMOs and interested states to mitigate the tragedy of the commons to deter or even eliminate IUU fishing.

Chapter two deals with the Law of the Sea as an international customary normative framework underpinned by strong Roman law doctrines of *res nullius* and *res communis* and the history of their implementation by States, as the nature of their interaction with other states with respect to fisheries changes. This chapter will concentrate on the application of the prevailing norms by two 16th century legal theorists; Grotius (from Holland an emerging naval power) and Selden (from Britain the dominant naval power), who each took a conflicting position applying the Roman principle that best suited their national conception of the high seas.

²⁶ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Articles 64-67 & 117-120.

²⁷ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Articles 89, 92 and 94.

²⁸ Commission for the Conservation of Antarctic Marine Living Resources

²⁹ A. Broadhurst, "The Long Hook of High Seas Fisheries Management: Use of the Nationality Base of Jurisdiction to Combat IUU Fishing in the CCAMLR Area" (*LLM Thesis*, Faculty of Law, Victoria University of Wellington, 19th February 2002) p 5.

³⁰ Above at n. 27, Articles 87 & 116.

³¹ Camile Goodman, "The Regime for Flag State Responsibility in International Fisheries law: Effective Fact, Creative Fiction, or Further Work Required?" (2009) *A&NZ Maritime Law Journal* 23: 157-169, 159-160.

Both acknowledged the problem of the susceptibility of the commons to overfishing if left unchecked (what Hardin³² came to call the *tragedy of the commons*). Interestingly Grotius, who advocated freedom, wrote;

“...and if it were possible to prohibit...fishing, for in a way can be maintained that fishing is exhaustible, still it would not be possible to prohibit navigation, for the same is not exhausted by that use.”

Hardin’s *tragedy of the commons* and other commentaries have established unequivocally the process by which resource users, left to individual choices, are driven to overuse any common resource. Dietz, Leal and Hsu and other commentators vehemently argue that regulation and the enforcement of compliance with those regulations is the only way to prevent the tragedy which Pauly terms ‘the *End of Fish*’.³³

Chapter three will look at the Present UNCLOS regime as it regulates fishing on the high seas, and how it contrasts with waters that fall under the jurisdiction of a Coastal State, where the present law of the Sea framework allows for enforcement of sustainable management measures in waters that fall within coastal state jurisdiction, where increasingly the freedom of fishing is being replaced with limitations and transferable quotas that vest in fishermen property in the fish they catch;³⁴ On the high seas it is a different story, UNCLOS guarantees not only freedom of fishing on the high seas³⁵, but also exclusive flag state jurisdiction over the flag state’s fishing boats on the high seas.³⁶

In the face of these two unequivocal customary norms, articles 117-120 of UNCLOS in comparison lay down a somewhat nebulous duty on interested states to co-operate in the management and conservation of high-seas fishery resources, making use, where appropriate, of international fishery commissions and RFMOs.³⁷ UNCLOS fails to provide these regional institutions with robust provisions and the requisite tools required to enforce conservation and sustainable management measures and ensure compliance. Ironically, there are more robust provisions on the need for fishstocks management in the section of UNCLOS that deals with highly migratory and straddling fishstocks in the EEZ of a Coastal State.³⁸ This seems rather pointless considering UNCLOS gives Coastal states both prescriptive and enforcement jurisdiction over the water column and the fisheries resources that fall within their respective EEZs, which includes the freedom to manage the stocks. RFMOs however, in spite of the lack of tools continue to receive the brunt of the criticism for the despicable state of high seas fisheries.³⁹ It is my contention that where a robust meaningful management regime is required – on the high seas – there is none.

³² Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

³³ Daniel Pauly, “Aquacalypse Now: The End of Fish” (September 28, 2009) *The New Republic*.

³⁴ Donald R. Leal, “Individual Fishing Quotas: Long Overdue” (June 25, 2002) *The Oregonian*; Donald R. Leal, “Homesteading the Oceans”, (2000) *PERC Reports*: Volume 18, No. 3, 12-14.

³⁵ United Nations Convention on the Law of the Sea, (10 December 1982) 1833 UNTS 396, Art 87(e)

³⁶ *Ibid*, Art 94

³⁷ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester. UK. 1999) p282 [see UNCLOS art 119].

³⁸ *Ibid*, p288.

³⁹ Sarika Cullis-Suzuki & Daniel Pauly, “Evaluating Global Regional Fisheries Management Organisations: Methodology and Scoring” [2009] *Working Paper #2009-12*, Fisheries Centre, University of British Columbia

It is a central premise of this dissertation that the normative framework that forms the architecture of the high seas fisheries regime represents an obstacle to the management of the high seas fisheries. Therefore this chapter will also briefly canvas some of the factors that contributed to the regime representing a road block to international fisheries management – arguing that the positivist regime highlights constructive process over structural process, with outcomes that are path dependent and dominated by short term political agenda that have the tendency to satisfy domestic political-economic ends often at the expense of international ones.

Chapter four takes a look at IUU fishing. Patrick Nickler, Daniel Pauly and Rachel Baird have all illustrated that not only is overfishing more often than not economically viable, it is often in a State's best interest to circumvent the rules, and overfish in the face of regulation. This provides us with a somewhat robust explanation as to why it has been so difficult for governments, communities, and other institutions to implement solutions to the commons dilemma, and why high seas fishing states have often been the most vociferous opponents to compulsory solutions and *hard* jurisdiction for RFMOs. Therefore it is essential to look at what drives IUU fishing, with the implication being that going to war against the drivers, may do more for eliminating IUU fishing than relying solely on RFMOs to make the rules and the flag state to enforce them which is the present *mode d'emploi*. "Tragedy may not be inevitable in the commons, but unhappily tragedy remains the predominant outcome."⁴⁰

Chapter five will acknowledge the political will by canvassing examples where interested parties (mostly coastal States) engaged in international co-operation to not only combat the IUU fishing, but also to work with RFMOs by providing them with the requisite additional tools to do the job. In addition to addressing the international principles that preclude enforcement of various measures passed to challenge the tragedy of the commons, it is necessary to outline the international *hard law* initiatives like the 1993 FAO Compliance Agreement⁴¹ and the 1995 UN Fishstocks Agreement⁴²; and other *soft law* initiatives like 1995 FAO Code of Conduct for Responsible Fisheries⁴³ & the 2001 FAO International Plan of Action on IUU fishing⁴⁴; that have contributed to the RFMO arsenal. Yet even these instruments are unable to adequately combat the strength of the two customary norms central to the UNCLOS high Seas fishing regime, and therefore have had limited success guarding against High Seas fishstocks decimation and IUU fishing, due to the most part of the international doctrine of *pacta tertiis* which requires the consent to a state if it is to be bound by any international measure.⁴⁵

⁴⁰ Barton H. Thompson Jr, "Tragically Difficult: The Obstacles to Governing the Commons" [2000] Working Paper No. 187, John M. Olin Program in Law and Economics, Stanford Law School, 1-54: 3.

⁴¹ *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*, FAO (Food and Agriculture Organisation of the United Nations) Rome, 24 November 1993, 33 ILM 968 (1994) ("Compliance Agreement").

⁴² *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea*, 10 December 1982 Relating to the Conservation and management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Dec 4, 1995, A/CONF.164/37, 8 September 1995, 34 ILM 1542. ("UNFSA or Fish Stocks Agreement").

⁴³ *Code of Conduct for Responsible Fisheries*, Food and Agriculture Organisation of the United Nations. Rome, 1995 ("Code of Conduct").

⁴⁴ *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*, FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001. ("IPOA-IUU").

⁴⁵

Lastly this thesis will canvas the development of port state measures which are the new weapon in the war against plummeting fish stocks, the black marketeering of many highly migratory species and the decimation of marine ecosystems. Port states represent a multi-faceted approach to the combat IUU fishing operations, and proceeds on the premise that since IUU fishing is not solely a legal problem, so too should the solution not be wholly a legal one. IUU operations are underpinned by political, social and economic factors – and in order to control the practice those other factors also need to be addressed. Trade and Port State measures dis-incentivise engagement in IUU fishing by attacking the profitability of IUU fishing and establishing import and export controls or prohibitions, based on the robust jurisdictional powers of the port state over their own ports. PSM include the MCS, vessel listings or ‘Blacklisting’, observer participation, vessel monitoring systems (VMS), and CDS, also the bolstering of import restrictions, strengthening civil and criminal penalties against illegal fishers, and the application of punitive trade sanctions against flag states who engage in IUU activities.⁴⁶

Port States measures have been becoming an increasingly important arsenal in the fight against overfishing and IUU fishing. Initially PSM were provided for as recommendations in the 1993 Compliance Agreements, the UNFSA and 1995 Code of Conduct. In 2001 the IPOA-IUU provided various PSM in order to combat IUU vessel ‘flag-hopping’ and IUU activities, in addition to the act of IUU fishing itself. As PSM are now included in a formal binding Port State measures Agreement (PSMA).⁴⁷ The PSMA provides port state with robust powers to prevent illegally caught fish from entering international markets through their ports by having foreign vessels submit to searches, declare their arrival and arrive with the requisite documentation (CDS) – transgressors will be denied use of the port and access to that ports market.⁴⁸

This thesis will conclude that although the High Seas Fisheries regime is dominated by two powerful, tried, tested and consented norms that (unintentionally) obstruct effective and meaningful high seas fisheries management, and have enabled unscrupulous states and actors to take advantage of the lacunae, and engage in IUU fishing and that has resulted in a tragedy of the high seas commons – the international community armed with a weaker UNCLOS obligations of conservation and co-operation and have fought the good fight, and in lightening speed have constructed a normative framework that is additional to but consistent and complimentary with the UNCLOS regime.

⁴⁶ Benjamin Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” [2009] *Ocean Development & International Law*, 40: 97-125, p 98.

⁴⁷ *Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing*, Annex E to the Report of the Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing, FAO Fisheries Report no. 759, FAO (Food and Agriculture Organisation of the United Nations) Rome, 2004; *Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*. C 2009/REP Corr. 3, Report of the Thirty-sixth Session of the FAO Conference on Fisheries, FAO (Food and Agriculture Organisation of the United Nations) Rome, 18-23 November 2009.

⁴⁸ *Ibid.*

II THE INTERNATIONAL COMMONS

A A HISTORICAL PERSPECTIVE

At the heart of the ‘bountiful’ ocean is a paradox. The ocean is home to a significant slice of the Earth’s natural resources – and these resources are locked up because they are located in the domain of what is “traditionally acknowledged to be beyond the exclusive jurisdiction of sovereign states, or what are known as ‘international commons’.”⁴⁹ Simply put, traditionally the Sea and its bounty is the property of everyone in common and at the same time the property of no-one in particular.

This concept of the ‘Commons’ is by no means a new concept; it is as ancient as it is problematic. Arguably the status of the World’s oceans as either property or commons has been a question since humankind first developed the requisite technology to cross the sea and catch its fish. Archaeological evidence shows that prehistoric humans engaged in fishing all over the world using primitive traps, nets tied from natural fibres, hooks, and harpoons.⁵⁰ Since then fishing has developed somewhat, and with the advent of refrigerated super-trawlers, sophisticated netting systems and satellite spotting equipment, fishing on the High Seas has become just as intensive as it has extensive. Yet still, to this day the debate over whether or not the Seas are free continues.

Historically conceptions of the status of the ocean and the resources within it varied as much as custom varied. Agreement based on the Law of Nations was very difficult to establish since different states had different interests and interpretations. In a New Zealand context the seminal case of *Baldick v Jackson*⁵¹ clarified and established the principles of both common and private property with respect to ‘fishes’ in the sea. The parties in *Baldick* battled over a whale that Jackson allegedly caught and then abandoned, which was subsequently appropriated by Baldick. The judge, Justice Stout was from a Scottish whaling family and was well versed in the custom of whale ‘fishing’. He was well aware that the contemporary New Zealand whaling custom had been imported from Scotland and England. Stout held that in order to have property in a ‘fish’ one must first take it from the commons, capture it and reduce it to possession.⁵² This appropriation by reduction to possession requires intention to possess. Furthermore one must secure and exert control over the fish. Looking for a lost fish is exerting control over it. Otherwise the fish remains common property and open for appropriation. This he noted was different to some other fisheries, namely the Greenland fishery, where a caught and then lost whale, can be appropriated by someone else. This acknowledgement by the court in *Baldick* of the uneasy historic duopoly between that which is property and that which is common and the associated rights and obligations go hand in hand with them, have since been translated with just as much confusion and just as problematically into our present Law of the Sea regime.

⁴⁹ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review* 12(1): 1-22, 1.

⁵⁰ *Ibid*, 2.

⁵¹ *Baldick v Jackson* (1910) 30 NZLR 343.

⁵² *Ibid*.

According to Soroos, the confusion over the Status of the Ocean comes down to a battle between two conflicting prevailing international legal principles that although attributed for the most part to Grotius and Selden, have been around for more than two millennia.⁵³ The first of the two conflicting principles is the principle of “freedom of the seas”, where the “oceans are assumed to be open to all who desire to make use of them.”⁵⁴ Logically it follows then that no state can legally appropriate them for exclusive use. The second of the two conflicting principles is the principle of “coastal state jurisdiction” where states “may exercise jurisdiction over parts of the oceans and claim exclusive rights to the marine resources located within them.”⁵⁵ These two principles located centrally in the UNCLOS, trace their lineage to Roman law and two codified doctrines of *jus gentium* that applied to Commons; *res nullius* and *res communis*.⁵⁶

(i) *Grotius*

The western notion of freedom of the seas is traced back to Hugo Grotius who maintained in two treatises; *Mare Liberum* (1609) and *De Jure Belli ac Pacis* (1625) that the Oceans can only be common property.⁵⁷ This theory put forward by Grotius according to Knight “came into the world somewhat like a bomb shell”,⁵⁸ especially when “powerful” maritime countries like Spain, Portugal, Britain, Venice and Denmark-Norway all found the idea of a *mare clausum- dominium maris* attractive.”⁵⁹ According to Hugo Grotius’s *Mare Liberum*, the seas must be free for navigation and fishing, because owning things that are obviously created by nature for common use by all is inconsistent with natural law.⁶⁰ Grotius relied on the Thomist School thinkers to illustrate his thesis, as are reflected in the works of Vitoria, Suárez and also to an extent in Gentili.⁶¹ Both Francisco de Vitoria (1486-1546) and Francisco Suárez (1548-1617) are unmistakably legal naturalists; both believing that “international law was founded on the universal law of nature, and that principles derived from nature bind states in their external relations”⁶² On the other hand, Alberico Gentili (1552-1608), did not rely on theology and canon law to justify his position, despite his constant reference to natural law and the law of nations. To Gentili, international law was not the same as natural law. Consequently, from a “perspective of reality” Gentili believed that “every nation-State in reality had equal rights”, and so “attributed

⁵³ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review*: 12(1): 1-22, 2.

⁵⁴ *Ibid*, 11.

⁵⁵ *Ibid*.

⁵⁶ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 312.

⁵⁷ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review*: 12(1): 1-22, 2.

⁵⁸ W.S.M Knight, *The Life and Works of Hugo Grotius* (London 1925) 107.

⁵⁹ Andreas H. Aure, “Acquisition of rights over the sea according to Hugo Grotius’ theory of natural law” [2008] REUNA Workshop, Bergen 12 – 14 May 2008 Europe overseas: Civil and Common law Receptions 1-15: 2.

⁶⁰ Jon M. Van Dyke, “1. Sharing Ocean Resources – In a Time of Scarcity and Selfishness” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) 3-36: 3.

⁶¹ Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law”(2000) *International Legal Theory* 6(1): 15-34: 17.

⁶² *Ibid*.

the basis of international law to the *practice* of States, as reflected in their treaties, voluntary obligations, custom and history.”⁶³

Grotius notion of the Law of the Sea stood somewhere in the middle between the naturalist Vitoria and Suarez and the positivist Gentili. Grotius acknowledged the positivist component of his International Law of the Sea by basing it on the “common consent” of nation-States.⁶⁴ However Grotius position is clothed most noticeably in the natural law tradition. Grotius wrote;

“For the principles of the law of nature, since they are always the same, [they] can easily be brought into a systematic form; but the elements of positive law, since they often undergo change and are different in different places, are outside the domain of systematic treatment, just as other notions of particular things are.”

However one must bear in mind that Grotius although basing his Law of the Sea on sound principle, not only a national of an emerging maritime power, but was also writing on behalf of the Dutch East India Company who were challenging Portuguese restrictions on navigation in the Indian Ocean.⁶⁵ Furthermore the state practice and conceptions of the law of nations, especially in the context of fishing, had been up until the time of Grotius for the most part a localised activity.

However by the Middle Ages fishermen had gradually begun to venture gradually farther from their ports. By the sixteenth century (the the Time of Grotius and the Dutch East India Company) Dutch fishermen were swarming off the coast of the British Isles as commercial herring fishing activity increasingly spread to larger areas of the North Sea and to the northeast Atlantic off the coasts of Iceland, Norway, and Greenland.⁶⁶ Soroos points out that with the discovery of the New World the productive Grand Banks cod fisheries off the coast of Newfoundland began to be exploited.⁶⁷ The notion of freedom of the high seas and common title to its fishes no longer sat well with everyone during Enlightenment Europe, especially in England. Heidbrink argues that the combination of the lack of control of foreign vessels in the ‘local’ waters of other coastal states coupled with an ever increasing fishing capacity, illustrated for the first time the susceptibility of fish stocks to overfishing.⁶⁸ All of a sudden Grotius’s concept of unfettered freedom of the seas no longer rang so true because all of a sudden people began to realise that the bounty of the sea was not endless. Scottish Lawyer William Welwood in *Sealaws of Scotland* (1613) accepted Grotius contention that navigation on the High Seas should be free, but argued that coastal states had the right to restrict access to off-shore fisheries that were becoming exhausted.⁶⁹ As it turned out, despite *Mare Liberum* and Grotius’s various other writings advocating freedom of the seas – freedom of the seas never did represent the accepted custom,

⁶³ Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law”(2000) *International Legal Theory* 6(1): 15-34: 17.

⁶⁴ *Ibid.*

⁶⁵ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review*: 12(1): 1-22: 12.

⁶⁶ *Ibid.*, 2-4.

⁶⁷ *Ibid.*

⁶⁸ Ingo Klaus Heidbrink, “The Oceans as the Common Property of Mankind from Early Modern Period to Today” [2008] *History Compass* 6(2): 659-672, 663.

⁶⁹ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review*: 12(1): 1-22: 13.

that is, it was not accepted state practice until the early nineteenth century when England emerged as the supreme global naval superpower.⁷⁰

Furthermore, it is argued by many commentators that the demise of Natural Law as a political doctrine in the course of conflicts against royal absolutism, gave way to positivism and ideas of nationalism, and of consensual government that were in keeping with Rousseau's 'Social Contract'.⁷¹ This idea of formalised consent, and nationhood arguably paved the way for appropriation of the global commons in favour of the national commons.

(ii) Seldon

In his 1635 book *Mare Clausum*,⁷² British lawyer and diplomat John Seldon put forward a contrasting perspective to that of Grotius. Seldon argued that coastal states had rights to the seas, so long as they could exert control over them. It is arguable that Seldon's proposal is closer to modern conceptions of the seas and territorial jurisdiction, and although it is concerned with the sea as a whole and not the resources within it, it is consistent with the principles in *Baldick*.

Seldon advocated the presence of a 'maritime belt' which should fall under a state's territorial waters. Italian jurists also aware of increasing Dutch incursions argued for a 100 mile zone or the 'two days sailing rule'.⁷³ Numerous other treaties began to emerge that where the methods of maritime delimitation were as varied as they were uncertain; the line of sight rule (which varied between 3 and 50 miles depending on where one was looking and whether one used a telescope), or set distance in leagues as was the method of the Scandinavians.⁷⁴ In the end the 'canon-shot rule' posited by Van Bynkershoek won out, where it was accepted that seas that were within the distance of a canon shot were deemed to be within the exclusive jurisdiction of sovereign states, and therefore not part of the 'International' Commons.⁷⁵ But even this rule had its inconsistencies, as it depended entirely on canon technology. However by the end of the Napoleonic Wars in 1815 it was accepted that three miles became the international standard of marine delimitation.⁷⁶ This canon-shot rule became the basis of ocean governance until World War II.⁷⁷ Crucially, apart from waters that were deemed to be an extension of states territory pursuant to the canon-shot rule, no state held any jurisdiction over the rest of the ocean which still remained common and free for all to use.

⁷⁰ Marvin S. Soroos, "The International Commons: A Historical Perspective" (1988) *Environmental Review* 12(1): 1-22: 13.

⁷¹ R.R. Churchill and A.V Lowe *The Law of the Sea* (3rd edition, Juris Publishing, Manchester, UK, 1999).

⁷² John Selden, *Mare Clausum, seu de Domino Maris Libri Duo* (The Closed Sea. Two books concerning the Rule over the Sea) 5.

⁷³ Marvin S. Soroos, "The International Commons: A Historical Perspective" (1988) *Environmental Review* 12(1): 1-22: 14.

⁷⁴ *Ibid.*

⁷⁵ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) 10.

⁷⁶ Marvin S. Soroos, "The International Commons: A Historical Perspective" (1988) *Environmental Review* 12(1): 1-22: 14.

⁷⁷ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) 10.

This doctrine of ‘freedom of use’ was a central maxim within the law of nations that went back millennia to when trading vessels searched the globe for trading ports. The doctrine was recognised and practiced within many civilisations, including the diplomatic and treaty relationship among the Chinese kingdoms during the Spring-Autumn and Warring States, the arbitration system of the ancient Greeks, and of course the concept of *jus gentium* which was a feature of ancient Roman legal system.⁷⁸ Even Japanese Lords in the 16th Century (whose main interest in relation to fisheries was to collect taxes and secure labour for the coastguard) – divided up their coastal waters and allocated them to fiefs.⁷⁹ However it is Roman law that I wish to shed light on further due to its relevance to Early-Modern European jurisprudence and international relations, and especially the two *jus gentium* principles that applied to the Commons; *res nullius* and *res communis*.⁸⁰

(iii) *Res nullius*

Res nullius – (literally nobody’s thing or nobody’s property) is Roman law doctrine that concerned the acquisition of property.⁸¹ Simply put something that belongs to nobody can be appropriated, so long as that appropriation is consistent with the law.

The doctrine of *res nullius* is a well used doctrine in western jurisprudence, and was for the most part the primary ‘legal’ basis by which Western Europe asserted sovereignty over large tracts of uninhabited or ‘under-inhabited’ territory. This doctrine was termed *terra nullius* which literally translates as nobody’s land. In order for a state to appropriate and colonize this land, they had to do so consistently with the Law of [Civilized] Nations. The first step in Colonial appropriation was an act of discovery coupled with a Crown Grant or Charter by a ‘Christian’ Sovereign which on an international level would serve to justify one colonising power’s superior claim vis-à-vis the claim of another ‘would be’ colonising power.⁸² However to legitimise the claim the Colonising State had to exercise uninterrupted control over the possession.⁸³ This second step acknowledged the centrality of the principles of settlement, defence, contiguity and long usage in the Law of Nations as the “oldest and most recognised principles of legal title in the world”.⁸⁴ Another dimension of the doctrine of *terra nullius* was promulgated by John Locke in his *Two Treatises of Government* (1728), where *terra nullius* was a wasteland and inconsistent with not only the Law of Nations but also Natural Law.⁸⁵

⁷⁸ Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law”(2000) *International Legal Theory* 6(1): 15-34: 15.

⁷⁹ Arne Kalland, “Mare Closum as a Management Tool in Fishing Societies” in James Oglethorpe (ed), *Tenure and Sustainable Use* (SUI Technical Series Vol. 2, IUCN, Washington DC, 1998) 119-129, 119.

⁸⁰ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 312.

⁸¹ *Ibid.*

⁸² James Tully, *An Approach to Political Philosophy: Locke in Contexts* (Cambridge University Press, Cambridge, 1993) p147.

⁸³ Mathew Craven, “Statehood, Self-Determination, and Recognition” in Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) 203-251: 211

⁸⁴ James Tully, *An Approach to Political Philosophy: Locke in Contexts* (Cambridge University Press, Cambridge, 1993) p147.

⁸⁵ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960); James Tully, *An Approach To Political Philosophy: Locke in*

Locke believed that;⁸⁶

“... [T]he law of nature stands as an eternal rule to all men, legislators as well as others. The rules that they make for other men’s actions must, as well as their own and other men’s actions, be conformable to the law of nature.”

With respect to property, Locke sees the difference between mere property and real property. Locke applies the doctrine of *res nullius* to land;⁸⁷

“But the chief matter of property being now not the fruits of the earth and the beasts that subsist on it, but the earth itself, as that which takes in and carries with it all the rest, I think it is plain that property in that too is acquired as the former. As much land as a man tills, plants, improves, cultivates, and can use the product of, so much is his property. He by his labour does, as it were, enclose it from the common [...] God and his reason commanded him to subdue the earth - i.e., improve it for the benefit of life and therein lay out something upon it that was his own, his labour. He that, in obedience to this command of God, subdued, tilled, and sowed any part of it, thereby annexed to it something that was his property, which another had no title to, nor could without injury take from him.”

Locke further asserts;⁸⁸

“God gave the world to men in common, but since He gave it them for their benefit and the greatest conveniences of life they were capable to draw from it, it cannot be supposed He meant it should always remain common and uncultivated.”

Thus according to Locke, subduing the common and enclosing is was a command of God, and therefore consistent with Natural Law. It follows that given the idea that Law of Nations conforms to the law of nature, to appropriate the common is consistent with International Law.⁸⁹ However, the question remains as to whether *terra nullius* in its general conception - *res nullius* - is applicable to the ocean? That is, can the ocean be appropriated given that the Romans had designated it *res communis*.⁹⁰

The amenability of something to be property according to Locke is in ‘legally’ *removing* it from the commons and adding ones labour to it in order to transform it into personal property. Locke writes;⁹¹

“God commanded, and his wants forced him to labour. That was his property, which could not be taken from him wherever he had fixed it. And hence subduing or cultivating the earth and having dominion, we see, are joined together. The one gave title to the other. So that God, by commanding to subdue, gave authority so far to appropriate. And the condition of human life, which requires labour and materials to work on, necessarily introduce private possessions.”

Contexts (Cambridge University Press, Cambridge, 1993); Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law”(2000) *International Legal Theory* 6(1): 15-34

⁸⁶ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960) § 135.

⁸⁷ *Ibid.*, § 32.

⁸⁸ *Ibid.*, § 34.

⁸⁹ Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law” (2000) *International Legal Theory* 6(1): 15-34: 19.

⁹⁰ Marie Alice Chardeaux, *Les Choses Communes: Thèse Droit Privé* (La Librairie Juridique de Référence [LGDJ], Paris, 2006).

⁹¹ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960) § 35.

As Locke expressly mentions cultivation and earth, and where by implication with the nature of the labour added to the earth in order to transform it to private property, it would appear that taking possession of the Marine Common is not what Locke had in mind. Nonetheless I suggest that his criteria are applicable to the oceans. The oceans can be subdued, managed and excluded. Locke's references to enclosure although in the context of land, are nonetheless applicable to the ocean as well. Technology and political maritime delimitation have an enclosing function. So it follows then that those Coastal States with the resources to appropriate the ocean and remove it from the commons are according to Locke justified in claiming sovereignty or jurisdiction over it.

So just as the doctrine of *terra nullius* benefits the nations with the technology and means to colonise either uninhabited or 'under-inhabited' lands, the doctrine of *res nullius* benefits those Coastal States that have the means to assert jurisdiction over adjacent waters, and control them. The commonly accepted tools with which States could directly apply the doctrine of *res nullius* over the Marine Common, were articulated by the Dutch jurist Cornelius Van Bynkershoek in *De Domino Maris* (1702) where he wrote the famous phrase *terrae dominum finitur, ubi finitur armorium vis* (the dominion of the land ends where the range of weapons ends), which came to be known in his day as the canon-shot rule.⁹² Today it could be the 'Coastguard' or 'Missile' rule.

This Van Bynkershoekian idea of 'the territorial aspect of the state extending to as far as the state can control' is consistent with Lockean ideology, and is especially significant today. Just like during the Colonial period when technologically superior states could impose their will against inferior 'uncivilised' states and subjugate and appropriate vast tracts of territory, today some states have the ability to subjugate and control wide tracts of ocean and continental shelf, to the exclusion of others who lack the ability. It is therefore no surprise that western coastal states that have been quick to apply the doctrine of *res nullius* and have been apt to do so. Kahn argues that in the context of claiming the continental shelf which is limited at 200nm, western coastal states [including New Zealand and Australia] pushed for jurisdiction far beyond the accepted 200nm isobaths provided that the shelf was adjacent and exploitable.⁹³ To buttress their claim they cited the *North Sea Continental Shelf* case in which the International Court of Justice held that a claim to the Continental Shelf required more than mere adjacency, distance and configuration also had to be taken into account.⁹⁴ The ICJ held that the "most fundamental" principle of the continental shelf doctrine is that the rights of the coastal states "*in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist ipso facto and ab initio.*"⁹⁵

However the application of *res nullius* to the World's maritime commons and its amenability to appropriation does have with it conditions. These conditions although articulated by Locke, are just as applicable today. They are a general consent and appropriation without prejudice.

⁹² Thomas W. Fulton, *The Sovereignty of the Sea: an Historical Account of the Claims of England* (The Law Book Exchange, Clark, New Jersey, 2005) 21; Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) 10.

⁹³ Makhdoom Ali Khan, "the Juridical Concept of the Continental Shelf" in Hugo Caminos (ed) *Law of the Sea* (Dartmouth Publishing and Ashgate Publishing Ltd, Aldershot, 2001) 191-212: 203.

⁹⁴ *Ibid.*

⁹⁵ *North Sea Continental Shelf Cases* (Federal Republic of Germany/Denmark and Netherlands) 1969 I.C.J. 3 (Feb 20), 69.

Hugo Grotius argued in *Mare Liberum* (1609) private property arose “not by a deliberate act of will but by a kind of agreement.”⁹⁶ Locke also recognised that appropriation of the commons required consent but for Locke the consent did not need to be express. Instead for Locke the consent was tacit; it was accepted as general principle that application of one’s labour to property, had the effect of removing it from the commons;⁹⁷

“By making an explicit consent of every commoner necessary to any one’s appropriating to himself any part of what is given in common [...] His labour hath taken it out of the hands of Nature where it was common, and belonged equally to all her children, and hath thereby appropriated it to himself.”

As to appropriation without prejudice Locke writes on a number of occasions that the amenability of appropriation of the commons is conditional on there being sufficient commons left for other commoners. Locke writes;⁹⁸

“The measure of property Nature well set, by the extent of men’s labour and the conveniency of life. No man’s labour could subdue or appropriate all, nor could his enjoyment consume more than a small part; so that it was impossible for any man, this way, to entrench upon the right of another or acquire to himself a property to the prejudice of his neighbour, who would still have room for as good and as large a possession (after the other had taken out his) as before it was appropriated.”

To this day ‘appropriation without prejudice’ remains a significant issue, especially when marine resources are unevenly distributed. Soroos points out that states with the resources to do so, have even unilaterally (often inconsistently with international law) claimed jurisdiction over parts of the oceans in the interests of security, conservation and in recent times to exercise exclusive rights to offshore oil and gas reserves.⁹⁹ On the 28th September 1945 US President Harry Truman proclaimed;¹⁰⁰

“Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the US regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the US as appertaining to the US, subject to its jurisdiction and control.”

Two years later, Iceland used the Truman Proclamation as a buttress for their own proclamation, where they proclaimed a comparable law that saw fish stocks on the whole shelf of the island come under the exclusive jurisdiction of the Island.¹⁰¹

Res nullius is the prevailing doctrine, along with the associated principles of contiguity, effective occupation and Lockean exclusive possession behind the establishment of the exclusive economic rights of coastal states over the resources of the water column for a distance of 200 nm

⁹⁶ Carole Pateman, “The Domination Contract” in Carole Pateman & Charles Wade Mills, *Contract and Domination* (Polity Press, Cambridge, 2007) 35-78: 48.

⁹⁷ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960) § 28-29.

⁹⁸ *Ibid.*, § 36.

⁹⁹ Marvin S. Soroos, “The International Commons: A Historical Perspective” (1988) *Environmental Review*: 12(1): 1-22: 12.

¹⁰⁰ Harry Truman ‘Presidential Proclamation No. 2667: Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf. 28 September 1945 (Truman Proclamation).

¹⁰¹ Ingo Klaus Heidbrink, “The Oceans as the Common Property of Mankind from Early Modern Period to Today” [2008] *History Compass* 6(2): 659–672: 664.

- the Exclusive Economic Zone (EEZ) – that was adopted by the General Assembly in 1982.¹⁰² It is arguable that at the point of being designated *res nullius* and therefore the property of no-one, it was possible for someone to take exclusive possession of it, by exercising control. One noticeable feature of contemporary sovereignty and jurisdiction over adjacent bodies of water and sea bed by coastal states is that for the moment at least the Lockean ‘appropriation without prejudice limitation’ has resulted in the High Seas still remaining common. That is they are still *res nullius*, and therefore the property of no one. However traditionally, perhaps the High Seas had a different designation.

(iv) *Res communis*

Res communis – (literally everybody’s thing or everybody’s property) is Roman property law doctrine that contrasts with the other Roman doctrine of *res nullius*. Simply put property that is *res communis* is the property of everyone and no one in particular. Traditionally property that is *res communis* by its nature may not be appropriated. The sea, the ocean, the atmosphere, sanctuaries or public baths were cited by the Romans as examples of *res communis*.¹⁰³ According to the Romans water or air, capable of being separated from the sea, ocean, or the atmosphere, and which can be appropriated for purposes of private use or consumption, are *res nullius*, because they are capable of possession and ownership individually or even collectively.

To some commentators the traditional Roman law conception of *res communis* is similar, to the notion of inheritance or the ‘common heritage of man’. However other commentators assert that *res universitatis* is more in keeping with the ‘common heritage of man’. They argue that *res communis* invokes notions of citizenship, whereas *res universitatis* invokes notions of humanity.¹⁰⁴ This distinction is significant when it comes to ascertaining the status of the world’s oceans as common or property. The benefit of the doctrine *res communis* is vested in citizens and not in humanity. This presupposes that citizens are to have the benefit of *res communis* at the expense of the rest of humanity. It must follow then that the benefit of *res communis* is owned by the citizens as joint tenants, and so *res communis* falls within the imperium of a state, and is a designation where no one has dominium, primarily due to its nature. This makes *res communis* an intermediate doctrine between *res nullius* and *res universitatis*; because if that which is truly owned beneficially by all of humanity and no one in particular and is therefore incapable of falling within the imperium of any state is *res universitatis*, then what is left must be capable of being appropriated according to the doctrine of *res nullius*. So *res communis* in its Roman conception could be described as a national common, as a reserve, or a lake is today. However what is clear is that the sea whether deemed *res universitatis* or *res nullius* is by its nature unable to be appropriated as a land can be or as a fish that is plucked out of the ocean can be because by its nature is as able to be reduced to exclusive possession. This however leaves another question – if the benefit sea is *res communis* how can someone have title to the fishes in the sea?

¹⁰² United Nations Convention on the Law of the Sea (UNCLOS), Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M 1245 (1982).

¹⁰³ Marie Alice Chardeaux, *Les Choses Communes: Thèse Droit Privé* (La Librairie Juridique de Référence [LGDJ], Paris, 2006)

¹⁰⁴ *Ibid.*

In modern usage the concept of *res communis* is distinguished by two characteristics: first things that are *res communis* may not be appropriated; and second use of things that are *res communis* belong equally to the people.¹⁰⁵ Article 2 of the 1958 Convention on the High Seas which was adopted by the United Nations Conference on the Law of the Sea outlined the modern conception of *res communis* in international law:¹⁰⁶

The high seas being open to all nations, no state may validly purport to subject any part of them to its sovereignty. Freedom of the seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, inter alia, both for coastal and non-coastal states:

- 1) Freedom of navigation;
- 2) Freedom of fishing;
- 3) Freedom to lay submarine cables and pipelines;
- 4) Freedom to fly over the high seas

These freedoms, and others which are recognised by the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in the exercise of the freedom of the high seas.

This principle of Freedom of the High Seas was re-iterated, as was the inalienable nature of the high seas and the fishes within it by Justice de Castro in the *Fisheries Jurisdiction* Case which was heard by the ICJ 16 years after the 1958 Convention on the High Seas. He held;¹⁰⁷

“The high seas, ‘res communis omnium’, is not something that lends itself to ownership; its use is common to everybody, and this applies also to fishing. The sea ‘unquam fuit a communion hominum seperatum’, and unlike lands and rivers, there is no reason to divide it up; fish stocks in the sea are inexhaustible and it would be iniquitous to divide up ownership in them of the right to fish for them.”

Here the international legal community is unequivocal about the status of the high seas as *res communis*, as being outside the imperium of any State, contrasting it from the Roman conception of the doctrine. Also what is clear is that the right to fish is also free. But what of the fishes themselves – are they *res communis*?

According to Locke, *res communis* applies to the resources in their natural state, but once fished, and reduced to ones possessions then they become the property of the fisherman.¹⁰⁸ This makes the fishes themselves, *res nullius*. Locke wrote,¹⁰⁹

“Though the earth and all inferior creatures be common to all men, yet every man has a “property” in his own “person.” This nobody has any right to but himself. The “labour” of his body and the “work” of his hands, we may say, are properly his. Whatsoever, then, he removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state Nature placed it in, it hath by this labour something annexed to it that excludes the common right of other men. For this “labour” being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good left in common for others.”

¹⁰⁵ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 315.

¹⁰⁶ Article 2, Convention on the High Seas (April 29, 1958), 12 U.S.T. 2312, T.I.S. No 5200, 450 UNTS 82.

¹⁰⁷ *Fisheries Jurisdiction* (United Kingdom v Iceland), 1974 I.C.J. 3, 97 (Merits, July 25, 1974) de Castro, J., concurring.

¹⁰⁸ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 316.

¹⁰⁹ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960) § 27.

To Locke it is the labour that someone adds to a thing like a fish, in the fishing of it that converts something from common property to private property. Furthermore, Locke acknowledges that things can be alienated from the commons, and are capable of use and possession;¹¹⁰

“Children or servants could not cut the meat which their father or master had provided for them in common without assigning to everyone his peculiar part. Though the water running in the fountain be every one's, yet who can doubt but that in the pitcher is his only who drew it out?”

Grotius illustrates the distinction further;¹¹¹

“[W]hen a slave says: ‘the sea is certainly common to all persons,’ the fisherman agrees; but when the slave adds: ‘Then what is found in the common sea is common property,’ he rightly objects, saying: ‘But what my net and hooks have taken is absolutely my own.’”

For me the judgment by Justice de Castro in the *Fisheries Jurisdiction Case* where he held fish stocks to be inexhaustible coupled with the two doctrines of *res nullius* and *res communis* in a modern setting has profound consequences.

First of all the doctrine of *res nullius* where the waters fall under the jurisdiction of the coastal state as being both a continuation of the Coastal State's territory and being controllable by that same coastal state, thereby making the fishes in those waters fall within the jurisdiction of that state, has effect of removing resources from the commons. This is arguably sellable to other third states because the high seas have been deemed *res communis*, and therefore unable to appropriated. This coupled with the blind assertion of the ICJ the *Fisheries Jurisdiction Case* that deemed fish stocks inexhaustible, when since the time of Selden States have known that fish stocks are susceptible to exhaustion has lead to a global grab. In recent years pursuant to the doctrine of *res nullius* coastal states have claimed coastal state jurisdiction over adjacent waters to the incredible distance of 200nm from their shoreline in order to protect their local fish stocks. And pursuant to the doctrine of *res communis* States are fishing the high seas common at unprecedented levels in order to secure access to its resources, at the expense of other states; this situation is what Hardin termed ‘Tragedy of the Commons’.¹¹²

In sum, both *res nullius* and *res communis* result in unequal distribution – where the rich and technologically advanced States will benefit most.¹¹³ With the ‘first come first served’ rule prevailing on the high seas especially in the context of fishing, poorer less technologically states who lack fast super-trawlers, spotting equipment and military hardware end up suffering unequal access. Furthermore and most importantly it is the rich states that make the rules because they have the economic leverage to do so. This mal-distribution is one of the drivers behind IUU fishing.

¹¹⁰ John Locke, *Two Treatise of Government: A Critical Edition With an Introduction and Apparatus Criticus* by Peter Laslett (Cambridge, Cambridge University Press, 1960), § 29.

¹¹¹ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 316.

¹¹² Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

¹¹³ B. Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338: 317.

F TRAGEDY OF THE COMMONS

In the time of Grotius, not only were the World's fisheries perceived as limitless, the very notion of having property in the fishes in the sea was absurd.¹¹⁴ But as we have since seen, both notions have been turned on their head. UNCLOS has included both Coastal state sovereignty and jurisdiction over the sea and its resources and has unequivocally declared the high seas *res communis*. Furthermore, UNCLOS has bestowed on all states an obligation of sustainable use of the ocean and its resources – two of the driving forces behind these provisions was the susceptibility of fish stocks to exhaustion, and equality of access to marine resources – including fisheries. However the apportioning of the world's most productive seas by coastal states into Territorial Seas and EEZ's, may have had a beneficial effect on some of the fisheries within those maritime zones, but outside those zones on the high seas, where there are now fewer fish for more fishing boats – the 'free for all' mass exploitation can only be described as a tragedy – not just for the fishes in those waters, but for humankind as well who are fishing certain species of fish to extinction.

It is the highly migrating and straddling fish stocks – the large predatory fish that sit at the top of the food chain, breed slowly, and have few natural predators – that are being systematically caught and consumed. According to Paul Greenberg; "*with wild fish we have chosen, time after time, to ignore the fundamental limits the law of nature places on ecosystems and have consistently removed more fish than can be replaced by natural process.*"¹¹⁵ According to Myers "[it] is estimated that the global ocean has lost more than 90% of large predatory fishes with an 80% decline typically occurring "within 15 years of industrialized exploitation."¹¹⁶ Thomas Dietz argues that the chaotic interplay among ocean ecologies, fishing technologies, and inadequate governance is threatening massive marine ecosystem degradation.¹¹⁷

In a recent National Geographic Magazine article Greenberg exposes the tragedy of overfishing the high seas.¹¹⁸ In the article Greenberg discusses the 'Seafood Print' study that Dr. Pauly and Enric Sala have been conducting, that shows that the capture of 'lesser' species such as anchovies, krill and plankton also have a deteious effect on top order predatory fish species like Tuna and Toothfish. Pauly and Sala have isolated the 'Seafood Print' showing that one 250kg Blue Fin Tuna is the equivalent to 2500kg of intermediate predatory fish. That is the equivalent of 10 Pacific Herring. The capturing of 10 Pacific Herring has the effect of 1 Blue Fin Tuna but also 25,000kg of first order predatory fish like Peruvian Anchovies. It follows then that the capture and consumption of 25,000kg of Anchovies also removes from the ocean 1 Blue Fin Tuna, and 10 Pacific Herrings. But also it represents the harvesting of 250,000kg of primary

¹¹⁴ Jon M. Van Dyke, "1. Sharing Ocean Resources – In a Time of Scarcity and Selfishness" in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) 3-36: 3.

¹¹⁵ Ben McIntyre, "The fish that's too tasty to live" *The Dominion Post*, Wednesday, August 4, 2010, B5 quoting Paul Greenberg's new book – *Four Fish: The Future of the Last Wild Food* (Penguin).

¹¹⁶ R. A Myers and B. Worm, "Rapid Worldwide Depletion of Predatory Fish Communities" [2003] *Nature* 423: 280-283, 280.

¹¹⁷ Thomas Dietz, Elinor Ostrom & Paul C. Stern, "The Struggle to Govern the Commons" [2003] *Science* 302, 1907-1912, 1907.

¹¹⁸ Paul Greenberg, "Time for a Sea Change" (October 2010) *National Geographic Magazine* 78(4): 80-81.

producers like planktons which are harvested for life-stock feed.¹¹⁹ I must point out that this explanation of the ‘Seafood Print’ model is a very simplistic linear explanation, it is much more complicated and interdependent than this, involving seabirds, marine mammals and sea plants and corals.¹²⁰ The upshot is that human plunder of the high seas commons has an ecological impact.

Yet the ‘Tragedy of the Commons’ put forward by Hardin in 1968 is more than merely ecological. Hardin’s model has been postulated in by many to characterise overcrowding in many sectors, including pollution, intellectual property and radio spectrums. However according to Hsu, Hardin’s *Tragedy of the Commons* was centred around “exorcising the spirit of Adam Smith” by attacking the “perils of unconstrained freedom.”¹²¹ The crux of Hardin’s model is the isolation of key elements such as resource scarcity, free rider problems, the lack of property rights,¹²² and I would also add to this list human population pressures, improved resource appropriation technology, unequal resource distribution and increased commodity prices; all of which serve as drivers behind IUU fishing.¹²³

Hardin argued that the *laissez faire* approach where the market will eventually “promote public interest’ that is attributed to Adam Smith, in some situations may not be the most beneficial outcome for society in general;¹²⁴

“In economic affairs, The Wealth of Nations (1776) popularized the “invisible hand,” the idea that an individual who “intends only his own gain,” is, as it were, “led by an invisible hand to promote...the public interest.” Adam Smith did not assert that this was invariably true and perhaps neither did any of his followers. But he contributed to a dominant tendency of thought that has ever since interfered with positive action based on rational analysis, namely, the tendency to assume that decisions reached individually will, in fact, be the best decisions for an entire society. If this assumption is correct it justifies the continuance of our present policy of laissez faire in reproduction. If it is correct we can assume that men will control their individual fecundity so as to produce the optimum population. If the assumption is not correct, we need to re-examine our individual freedoms to see which ones are defensible.”

According to Dietz, Hardin drew attention to two human factors that drive environmental change; (i) the increasing demand for natural resources and environmental services, stemming from growth in human population and per capita resource consumption and (ii) institutional arrangements – that is, the way ‘in which humans organize themselves to extract resources from the environment (and eject effluents into it).’¹²⁵ Hardin analogises that the way in which the tragedy of the commons develops is akin to a common pasture and some herdsmen;¹²⁶

“... It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the

¹¹⁹ Paul Greenberg, “Time for a Sea Change” (October 2010) *National Geographic Magazine* 78(4): 82-85.

¹²⁰ *Ibid.*

¹²¹ Shi Ling Hsu, “What is a Tragedy of the Commons: Overfishing and the Campaign Spending Problem” [2005] *Albany Law Review* 69: 102-165, 103.

¹²² *Ibid.*, 104.

¹²³ Carl-Christian Schmidt, “Economic Drivers of Illegal, Unreported and Unregulated (IUU) Fishing” [2005] *International Journal of Marine & Coastal Law* 20(3-4): 479-508.

¹²⁴ Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

¹²⁵ Thomas Dietz, Elinor Ostrom & Paul C. Stern, “The Struggle to Govern the Commons” [2003] *Science* 302, 1907-1912, 1907.

¹²⁶ Above at n 77.

numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy. As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component: (1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly + 1; (2) The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision making herdsman is only a fraction of - 1.

Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd... and another... But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit -- in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all."

Fisheries are similar to Hardin's pasture analogy except instead of using up grazing, one is using up the fishes, to the point where increased fishing pressure has caused certain stocks of fish to become overfished and threatening the total collapse of the fishery. A fishery collapses when the "level of fish caught jeopardises the capacity of the fishery to produce a maximum sustainable yield (MSY)."¹²⁷ In 1966 Economist Frederick Bell empirically verified the overexploitation of a commons New England's northern lobster fishery. He found that an "efficient output of lobster would have occurred at 17.2 million pounds. To attain this output, the efficient number of lobster traps would have been 433,000. However, during 1966 Bell found that fishers employed too much capital – 891,000 traps – to harvest too many lobsters – 25 million pounds."¹²⁸

Many fisheries economists have indicated that many commercial fisheries are already closed or producing lower harvests, with serious economic repercussions for the fishermen and for the communities in which they live. Thompson points out that in 1992, Canada was forced to close its commercial ground fishery off Newfoundland which led to the "loss of some 40,000 jobs, the withering of local communities, and a social welfare bill exceeding \$1 billion."¹²⁹ A fishing moratorium exists over the Grand Banks and Georges Bank, once among the greatest cod fishing grounds in the world.¹³⁰

According to Nickler an open access commons system usually follows a "four step pattern of development: (1) discovery; (2) expansion; (3) overexploitation; and (4) collapse."¹³¹ A species that clearly illustrates Nickler's four step pattern the tragedy of the commons is the Atlantic Blue Fin Tuna. These fish are one of the world's most sought after eating fish. A fully grown Blue Fin

¹²⁷ P.A Nickler, "A Tragedy of the Commons for Coastal Fisheries: Contending Prescriptions for Conservation, and the Case for the Atlantic Blue Fin Tuna (1998-1999) *B.C. Environmental Affairs Review*, 26; 549.

¹²⁸ Frederick W. Bell, "Technological Externalities and Common-Property Resources: An Empirical Study of the U.S. Northern Lobster Fishery." (Jan-Feb 1972) *Journal of Political Economy*, 148-158: 156.

¹²⁹ Barton H. Thompson Jr, "Tragically Difficult: The Obstacles to Governing the Commons" [2000] Working Paper No. 187, John M. Olin Program in Law and Economics, Stanford Law School, 1-54: 9.

¹³⁰ *Ibid.*

¹³¹ Above at n 80, 552.

can usually bring in as much as \$50,000 US for the fisherman.¹³² Recently a single 250kg fish sold in Japan for \$175,000.¹³³ Blue Fin Tuna are a valuable commercial enterprise that brings in a substantial export income for states. It is no surprise that fishing states are engaging in what Nickler terms a “race to the resource.”¹³⁴ The drive to supply the Japanese sashimi, sushi and otoro market has lead tuna fishing boats to “drop more hooks and nets than any other form of fishing.”¹³⁵ McIntyre sombrely writes that “since the dawn of industrialised fishing, bluefin tuna stocks have plummeted by over 85%” – for they are the “most comprehensively over-hunted, over-eaten and over-traded beast on the planet” – It is said that fewer than 900 may remain in the North American stock.¹³⁶ Furthermore the Blue Fin’s highly migratory nature makes them all the more vulnerable – they swim in and out of managed territorial seas and EEZ’s and into the nets that wait for them in the High Seas Commons.

So this leaves the question? How do we overcome the *Tragedy of the Commons* and ensure the sustainable management of highly migratory species like the Bluefin Tuna and the Patagonian Toothfish, given that EEZ’s fall under the jurisdiction of the coastal state and given that freedom of fishing on the high seas is guaranteed since they are *res communis* and therefore incapable of falling under the jurisdiction of any state?

(i) Overcoming the Tragedy of the Commons

As we established above Hardin’s story of overexploitation of the open access commons contrasts with Smith’s narrative illustrating “the coincidence of self-interest and collective interest” – Adam Smith’s story describes self-interest increasing collective wealth.¹³⁷ Hsu points out that by implication Smith’s narrative does not require government intervention, and so since Hardin’s story is ‘antithetical’, it follows then that according to Hardin, overcoming the tragedy requires governmental intervention.¹³⁸ More specifically Hardin advocates “social arrangements that produce responsibility” which he terms “mutual coercion mutually agreed upon.”¹³⁹ Simply put Hardin is saying that a variety of generally accepted interventions may be required, including governmental regulation, governmental imposed limitations, and even privatisation.¹⁴⁰ Hardin’s thesis is that mutual coercion or governance is essential to mitigate against the tragedy, because left unchecked fishermen will fish out the Commons.

Some commentators including Sugden argue that Hardin’s tragedy of the commons “belongs to a class of problems that have no technical solution, effectively denying a role for science.”¹⁴¹ And although initially this may have appeared to be the case, today the one of the reasons why earlier

¹³² P.A Nickler, “A Tragedy of the Commons for Coastal Fisheries: Contending Prescriptions for Conservation, and the Case for the Atlantic Blue Fin Tuna (1998-1999) *B.C. Environmental Affairs Review*, 26; 555.

¹³³ Ben McIntyre, “The fish that’s too tasty to live”(Wednesday, August 4, 2010) *The Dominion Post*, B5.

¹³⁴ P.A Nickler, “A Tragedy of the Commons for Coastal Fisheries: Contending Prescriptions for Conservation, and the Case for the Atlantic Blue Fin Tuna (1998-1999) *B.C. Environmental Affairs Review*, 26; 549.

¹³⁵ Above at n 85.

¹³⁶ Above at n 86.

¹³⁷ Shi Ling Hsu, “What is a Tragedy of the Commons: Overfishing and the Campaign Spending Problem” [2005] *Albany Law Review* 69: 102-165, 106.

¹³⁸ *Ibid.*

¹³⁹ Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

¹⁴⁰ Above at n 90, 106-107.

¹⁴¹ Andrew Sugden, “Where to From Here”(2003) *Science* 302; 1906.

regulation of the commons has been seen to be such a failure is the exclusion of fisheries scientists and the application of an ecological approach to the regulatory process. This approach was subsequently seen to be problematic. According to Dietz;¹⁴²

“Devising effective governance systems [that support diverse life, including conflicting human values and interests and a reasonable quality of life for humans] is akin to a co-evolutionary race. A set of rules crafted to fit one set of socio-ecological conditions can erode as social, economic, and technological developments increase the potential for human damage to ecosystems and even to the biosphere itself. Furthermore, humans devise ways of evading governance rules. Thus, successful commons governance requires that rules evolve.”

It is clear that the governance model required to mitigate against Hardin’s tragedy needs a multipronged approach, that takes into account ecological factors as well as socio-economic ones. Although Hardin’s tragedy has activated regulation that minimise individual action in favour of effective governance and regulatory (and more recently market) solutions, it is arguable that it did so by vilifying fishermen and the excluding them from the high seas decision making process. Haward and Vince argue that “regulatory and government control” became the only means of protecting fishstocks and controlling fishermen.¹⁴³ Haward and Vince further assert that as fishermen became increasingly seen as “selfish profit maximisers” and regulators increasingly became the ‘high seas protectors’ – the more this perspective became self fulfilling.¹⁴⁴ So as the perception that government regulation was required increased the more removed the fishermen came from the regulatory process, and the more tragic the solution became. According to Donald Leal, *“for decades, governments have tried to avoid the tragedy of the commons through regulations. They have limited season length, constricted the areas open to fishing, dictated types of gear and the size and power of vessels, and set a minimum size for landed fish.”* However these prescriptions calling for central governments and other institutions to impose uniform regulations over fish-stocks and fishing practice have not eliminated overfishing, nor have they prevented wasteful fishing practices and damage to marine ecosystems.¹⁴⁵ Leal argues that these regulations don’t often work because fishermen react in very human ways.¹⁴⁶ He argues that when the season is shortened, fishermen with accompanying subsidies purchase bigger, faster boats to catch the same amount of fish or more in a shorter time.¹⁴⁷ Furthermore the limitation of catch sizes per fishing trip invariably leads to the discard of lower quality fish over the side of the trawler.¹⁴⁸

Furthermore many of these prescriptions and regulations are predicated on the premise that fishermen are predisposed to fish the commons to collapse. Ostrom asserts that these prescriptions are not supported by empirical research. On the contrary *“[f]ield studies in all parts of the world have found that local groups of resource users, sometimes by themselves and sometimes with the assistance of external authorities, have created a wide diversity of institutional arrangements for coping with common-pool*

¹⁴² Thomas Dietz, Elinor Ostrom & Paul C. Stern, “The Struggle to Govern the Commons” [2003] *Science* 302, 1907-1912, 1907-1908.

¹⁴³ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) 16.

¹⁴⁴ *Ibid.*

¹⁴⁵ Donald R. Leal, “A New Fishing Tragedy: The “Anti-commons” Leads to Underuse”, (2004) *PERC Reports*: Volume 22, No. 3.

¹⁴⁶ Donald R. Leal, “Individual Fishing Quotas: Long Overdue” (June 25, 2002) *The Oregonian*.

¹⁴⁷ *Ibid.*

¹⁴⁸ *Ibid.*

resources.”¹⁴⁹ Indeed according to Thomson; “most of the recent academic literature on the tragedy of the commons has examined why some commons do not lead to tragic consequences.”¹⁵⁰ Many commentators have shown that local communities throughout the world sometimes have been able to avoid the tragedy through the development of local management institutions. Economists have long argued that the tragedy could be better mitigated if we “privatized the commons,” that is, created “individual private property rights for common-pool resources.”¹⁵¹ That process is beginning to happen.¹⁵²

Leal points out that individual fishing quotas, called IFQs or ITQs (for individual transferable quotas), are a locally managed institution that has drastically turned the table on the *tragedy*.¹⁵³ Leal explains;¹⁵⁴

“With IFQs, however, each fisherman is entitled to catch a specified portion of the total allowable catch that is set each season by fishery managers. The fisherman can take the quota when he wants to, and the race to fish disappears. Because the quota shares are transferable, current holders can adjust the size of their fishing operations by buying and selling quota shares, or even retire from the business. New Zealand and Iceland use individual quota programs to manage nearly all their commercial fisheries.”

The institution of IFQs involves and empowers the fisherman but at the same time relies on Hardian mutual coercion where governmental regulatory bodies monitor and set catches.¹⁵⁵ Some commentators fear that IFQs may lead to privatization of fisheries, however commentators must bear in mind that the waters fall within the enforcement jurisdiction of the Coastal state and it is the coastal state that not only allocates the IFQs, but also enforces them, revokes them and assesses the health of fish stocks.

Yet the question remains – Seldenian *mare clausum* management strategies like IFQs may be successful in the context of local waters, territorial seas and the EEZs that fall within the jurisdiction of the coastal state. But what of the High Seas that are by their nature are *mare liberum* and *res communis* and therefore rests beyond the jurisdiction of any Coastal state?

On the High Seas Hardin’s *tragedy* remains a sobering notion. To halt this slide toward a ‘marine dystopia’ a system of high seas governance with teeth is required. Daniel Pauly asserts that regulatory agencies must impose well structured quotas on the amount of fish caught in any given year.¹⁵⁶ Pauly argues that “simply permitting all fisheries to catch a given aggregate number of fish annually results in a wasteful build-up of fleets and vessels as fisheries race to grab as large

¹⁴⁹ Elinor Ostrom, “Coping with Tragedies of the Commons” (1999) *Annual Review of Political Science* 2: 493-535:494.

¹⁵⁰ Barton H. Thompson Jr., “Tragically Difficult: The Obstacles to Governing the Commons” [2000] Working Paper No. 187, John M. Olin Program in Law and Economics, Stanford Law School, 1-54: 2.

¹⁵¹ Daniel K. Benjamin, “Fisheries are Classic Example of the “Tragedy of the Commons”” (2001) *PERC Reports*: Volume 19, No. 1.

¹⁵² *Ibid.*

¹⁵³ Donald R. Leal, “A New Fishing Tragedy: The “Anti-commons” Leads to Underuse”, (2004) *PERC Reports*: Volume 22, No. 3.

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

¹⁵⁶ Daniel Pauly, “Aquacalypse Now: The End of Fish” (September 28, 2009) *The New Republic*.

a share of the quota as possible before their competitors do. Such a system may protect the fish, but it is economically disastrous.”¹⁵⁷

The present international regime centred around the fisheries of the High Seas is complicated, inefficient, uncertain and problematic – and plagued by a problem that comes right out of Hardin’s book – IUU Fishing or Illegal, Unregulated and Unreported Fishing. Instituting regional, supra-national and international solutions to IUU fishing on the High Seas has in the last decade been a *cause célèbre* since the collapse of various fisheries in the 1990s. Furthermore as Pauly argues,¹⁵⁸

“[I]t is not just the future of the fishing industry that is at stake, but also the continued health of the world’s largest ecosystem. While the climate crisis gathers front-page attention on a regular basis, people--even those who profess great environmental consciousness--continue to eat fish as if it were a sustainable practice.”

¹⁵⁷ Daniel Pauly, “Aquacalypse Now: The End of Fish” (September 28, 2009) *The New Republic*.

¹⁵⁸ *Ibid.*

III CONTEMPORARY HIGH SEAS GOVERNANCE

Throughout history governance over the Sea and its resources has been dominated by two doctrines; that of *res nullius* which predisposes the Sea to appropriation and control; and that of *res communis* which states that by its nature the Sea is incapable to appropriation, and in keeping with natural law is the property of all, and no-one. These ancient doctrines have been applied in various conceptions throughout history, by the Chinese, the Japanese, the Greeks and even the Polynesians a culture of Seafarers that believed no-one could own the sea.

To the states of Early Modern Europe who came to dominate the World's oceans, the very same doctrines were used to justify the positions of a state, claiming maritime rights. The Dutch, an emerging naval power in the seventeenth century, championed by Grotius, advocated a *mare liberum* claiming that the sea was a *res communis* or a commons and so belonging to all, and no-one in particular. Whereas the British who had recently established themselves as the premier global naval power at the expense of the Spanish, and in particular Selden, advocated for a *mare clausum* where the Sea by virtue of being *res nullius* was capable of being appropriated and excluded from the commons.

This chapter will show that the customary normative course that has been chartered historically continues to loom large in UNCLOS today – especially in the context of the global fisheries. According to Gavouneli, UNCLOS represents;¹⁵⁹

“The culmination of the tug-of-war between sovereignty of the Coastal State, which atavistically purports to expand its power further and further away from land; and the freedom of the high Seas, a principle partly created as a reflexion of the impossibility to subdue the vast expanse of water for long centuries in human history.”

However as we have already ascertained in the previous chapter this Grotian v Seldenian tug-of-war was overcome with the formalising of both contradictory doctrines of *mare clausum* and *mare liberum* into the ink of the Convention. Yet in the context of fisheries the *tug-of-war* is very much alive. Where the former which applies to the EEZ has certainly facilitated better fisheries management where fishes fall under both the prescriptive and enforcement jurisdiction of the Coastal State.¹⁶⁰ But what of the High Seas, which UNCLOS designates a global commons or *mare liberum*? We established in the previous chapter with Hardin's *Tragedy of the Commons* that not only are people predisposed to fish out those commons; “common property in fish leads to economic inefficiency.”¹⁶¹

¹⁵⁹ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) pp 1-2.

¹⁶⁰ Article 56(1)(a) of UNCLOS which vests in the Coastal State “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.” Article 57 establishes the generous area; “The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.” These articles remove the EEZ from the Commons which has the effect of locking up to 90% of global fishstocks, (apart from Highly Migratory and Straddling Stocks that venture beyond the EEZ of any of particular State and enter other EEZs or the High Seas. UNCLOS makes provisions for DWFNs and Coastal States to manage these stocks [see Articles 63-68]).

¹⁶¹ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999), p282.

Yet in spite of the long held awareness of the need for the high seas and its fishstocks to be sustainably managed, the codified normative framework established in UNCLOS – is centred on jurisdiction and the lack thereof – any provision that deals with actual management lacks teeth and clarity.

Where there was an opportunity during the UNCLOS III conferences to set up a framework that would mitigate the tragedy of the commons, that opportunity was squandered. Now the high Seas fisheries regime is dominated by historic norms that guarantee the freedom of fishing, and exclusive flag state jurisdiction over fishing boats. The central premise of this essay is that these two norms have proven to be monumental obstacles in the management of the high seas fisheries. And even in the face of subsequent international co-operation and the establishment of new conventions that address the lacunae left by UNCLOS in the context of fishing on the high seas, these two principles serve as justification for IUU fishing, which not only undermines these measures, but furthers Hardin's tragedy of the commons doctrine, by continuing to fish at a rate that is unsustainable and recklessly doing so in the face of imminent collapse of high seas migratory and straddling fish stocks.

This chapter will look at UNCLOS in the context of High Seas Fisheries – and will show that the contemporary regime is shaped by the very same historical principles and pre-existing normative arguments that are discussed above, applied today through a constructivist process; that is path dependent, hindered by the limited positivist toolkit with which international rule makers make rules and dominated by short term political agenda where often domestic political ends trump International relations.

A *FACTORS THAT SHAPED THE CONTEMPORARY FRAMEWORK*

(i) Constructivism

The high seas fishing regime is constructed from historic norms that arguably further short term agenda without reference to power relationships among the parties, unequal distributive relationships and furthermore it seems that the states parties in the construction of the present UNCLOS high seas fisheries regime failed to acknowledge the elephant in the room; fishstocks. The present regime guarantees the freedom to fish in the absence of any Coastal State jurisdiction, but fails to put in place any mechanisms by which high seas fishstocks that are free to fish can be managed, and thereby ensure the free fishing it promises.

Commentators label this approach to institution building as constructivism. Broadly, constructivism refers to the idea that human interests and power structures are not natural and given in a pre-existing order but rather are effected through ideas and norms. Finnemore writes “interests are not just ‘out there’ waiting to be discovered; they are constructed through social interaction.”¹⁶² According to Wendt constructivist decision making wants ‘the structures of human association to be determined primarily by shared ideas rather than material forces, and it wants identities and interests of purposive actors are constructed by these shared ideas rather

¹⁶² Martha Finnemore, *National Interests In International Society* (Cornell University Press, New York, USA. 1996), 2.

than given by nature.¹⁶³ These ‘shared ideas’ that Wendt refers to, or ‘norms’ are structured and channelled in order to shape organisational behaviour.¹⁶⁴

The trouble with a constructivist approach to the institution of a governance framework for the fisheries of the high seas is that there are questions for which at present there are no normative answers. What about the impact of free fishing on high Seas fishes? According to Zannakis constructivism “fails to identify power asymmetries, it ‘censors’ material factors”, it overemphasises structure, underemphasises material variables and avoids questions of power and inequality.¹⁶⁵ Zannakis further argues that constructivists fail to ask the crucial question in order to understand why social or natural phenomena are perceived as problems, what the problems are about, and in what way they are political?¹⁶⁶ In the context of the law of the Sea and fish stocks the questions as to the effect of application of the normative law of the sea regime was not asked? The questions asked and answered were instead the long asked and long answered questions of absolute freedom to fish in the context of accepted coastal state encroachment on that absolute freedom.

(ii) Path Dependence

The present Law of the Sea regime with respect to fishing on the high seas is path dependent in that policy or regulatory innovations are wholly dependent on the historic normative framework and arguably the principles; the principle of freedom of fishing on the high seas and the principle of exclusive flag state jurisdiction are so entrenched that any proposal that is put forward in furtherance of meaning high seas fishstocks management that is inconsistent with those principles is unable to be implemented, irrespective of its effectiveness.

Simply, path dependence means that where we go next depends not only on where we are now, but also upon where we have been.¹⁶⁷ Path Dependence according to David;¹⁶⁸

¹⁶³ Alexander Wendt, *Social Theory of International Politics* (Cambridge University Press, Cambridge, UK. 1999), 1.

¹⁶⁴ Martha Finnemore, *National Interests In International Society* (Cornell University Press, New York, USA. 1996), 3 - Finnemore does concede that the Constructivist “*role of norms as tools of utility-maximising firms in coordinating behaviour and facilitation Pareto-optimal outcomes*” is too simplistic – she argues that norms have an important role in the context of organisations in that they have a role in “*institutionalising and propagating cultural norms – norms that define identities, interests and social realities for the people who inhabit those organisations.*” However Finnemore doesn’t seem to acknowledge that these norms when “structured and channelled in order to shape organisational behaviour” can be taken and melded or more often than not cement into rigid structures or become embedded within certain parameters, which is arguable true of the norms behind Fishing on the High Seas.

¹⁶⁵ Mathias Zannakis, “International Norms Facing Powerful Discourses at the Domestic Fence: Climate Change Policy in Sweden” (2008) *Paper prepared for the 49th Annual ISA Convention*, San Francisco, CA, March 26th - 29th, 2008, p8.

¹⁶⁶ *Ibid.*

¹⁶⁷ S. Liebowitz & S Margolis, “0770 Path Dependence” in Boudewijn Bouckaert & Gerrit De Geest (eds), *Encyclopedia of Law and Economics, Volume I. The History and Methodology of Law and Economics* (Edward Elgar, Cheltenham, UK: September 2000) 981-998: 981.

¹⁶⁸ Paul A. David, “Path dependence, its critics and the quest for ‘historical economics’” [1997] in P. Garrouste and S. Ioannides (eds), *Evolution and Path Dependence in Economic Ideas: Past and Present* (Edward. Elgar Publishing, Cheltenham, England. 2000) p 3.

“...[R]efers to a property of contingent, non-reversible dynamic processes, including a wide array of processes that can properly be described as ‘evolutionary’. The set of ideas associated with path dependence consequently must occupy a central place in the future, historical social science that economics should become.”

Liebowitz & S Margolis argue that the phrase path dependence that implies either (a) that “history [in its broadest conception] matters;” or (b) that predictable amplifications of small differences are a disproportionate cause of later circumstances” and that if the path dependence is “strong” the historical hang-over is “inefficient.”¹⁶⁹ So where path dependence can be strong, so too, can it be weak. Weak path dependence is best demonstrated when the “efficiency of the chosen path is tied with some alternatives”; semi strong path dependence is demonstrated when the chosen path is not the best but not worth fixing; and strong path dependence, which is the conception employed in the present regime of the Law of the Sea as it pertains to fisheries, where the chosen path is highly inefficient, but is unable to be corrected.¹⁷⁰

Path dependence can refer to either outcomes at a single moment in time or to long run equilibria of a process.¹⁷¹ The concept of path dependence originated as an idea that a small initial advantage or a few minor random shocks along the way could alter the course of history.¹⁷² This is arguably the case for Microsoft, a small initial advantage that has given rise to an arguable inefficient computer platform that is so globally entrenched that sticking with the inefficient platform makes more economic sense than doing away with it, which would not be cost effective.

In the context of the Law of the Sea and fishing on the high seas, path dependence is reflected in the consent for appropriation of waters up to 200 nm from the shoreline by Coastal States by UNCLOS states parties and as *quid pro quo* for that consent the guarantee that fishing on the high seas will be free of Coastal State jurisdiction and open to all. In my opinion freedom of fishing on the high seas and exclusive flag state jurisdiction on the high seas is tantamount to a kind of consideration owed by coastal states to other states, for their divestiture of fishing rights over the high seas that now make up the EEZs of the coastal states. This has resulted in strong path dependence and the creation of an equilibrium that is such where compliance with the UNCLOS provisions has proved to be problematic and arguably unachievable.

(iii) Positivism

Positivism is not structural, it is more an approach or a conception of what law is – and it is arguable that International Law and international “*conventioning*” is very positivist. According to Churchill and Lowe, positivism is a “matter of a shift in the balance of the range of rhetorical tools employed by jurists than it is of the replacement of one intellectual structure by another.”¹⁷³ “The positivist approach” writes Churchill and Lowe, “with its emphasis upon what

¹⁶⁹ S. Liebowitz & S Margolis, “0770 Path Dependence” in Boudewijn Bouckaert & Gerrit De Geest (eds), *Encyclopedia of Law and Economics, Volume I. The History and Methodology of Law and Economics* (Edward Elgar, Cheltenham, UK: September 2000) 981-998: 981.

¹⁷⁰ *Ibid*, pp 981-998.

¹⁷¹ Scott Page, “Path Dependence” [2006] *Quarterly Journal of Political Science*, 1: 87–115, 87.

¹⁷² *Ibid*.

¹⁷³ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999), p5.

states actually do rather than upon what Greeks, Romans, Prophets and common reason might have thought that States should do”¹⁷⁴, can be traced back to seventeenth century England, and theorists such as John Austin, John Stuart Mill and Jeremy Bentham who were influenced by continental theorists and a movement away from Natural Law.¹⁷⁵

International Conventions are undoubtedly positivist. For example the Statute of the International Court of Justice for the purpose of establishing the sources of international law, listed as law the following;¹⁷⁶

- (a) “international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- (b) international custom, as evidence of a general practice accepted as law;
- (c) the general principles of law recognized by civilized nations...”

This list unequivocally states what international law is. It is also explicit that anything that does not feature in that list is not law – and is therefore unenforceable in International Institutions, namely the International Court of Justice. Even on its own Article 38 of the *Statute of the International Court of Justice* establishes a normative precedent that applies to international law in every context. So it follows that the very act of codifying normative principles and reducing them to the ink of a Convention has the effect of transforming them from something fluid and changeable to something granitic and foundational. In this way the International Legal Framework of the Law of the Sea is positivist - that is, its normative foundations are unequivocally based on customary norms and general principles of law recognised by civilized states that have been codified in an international convention and widely ratified.¹⁷⁷ Furthermore the positivist nature of UNCLOS is illustrated by the way it is applied through institutions that are either creatures of UNCLOS, precede UNCLOS and were instrumental in its establishment, or are have been created in furtherance of it. These institutions comply with international rules created pursuant to international conventions and custom, and enforce them according to their enforcement jurisdiction.

Churchill and Lowe argue that at least in the context of modern Law of the Sea “there are signs that the age of positivism is passing” and “tested putative rules of law” are giving way to a “*looser approach to the determinations of normativity, positivism remains the official creed of international lawyers, and the place from which we must begin.*”¹⁷⁸

¹⁷⁴ I R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999), p5.

¹⁷⁵ William L. Morison, *John Austin* (Stanford University Press, Stanford CA, USA. 1982) pp 34-38, 55.63.

¹⁷⁶ *Statute of the International Court of Justice*, [1945] PITSE 3 (26 June 1945)1946 U.N.Y.B. 843, Article 38.

¹⁷⁷ Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) – Because UNCLOS [and especially in the context of Fisheries] is based upon widely recognised historical normative principles of Customary International Law – UNCLOS is binding on both States that have ratified the convention, and states like the USA that have not signed or ratified the convention. The difference is that States parties are bound by lesser norms whereas non states parties who don’t feel bound by those lesser norms are not. Furthermore non states parties don’t usually have recourse to the Institutions that UNCLOS has set up – i.e. The International Tribunal for the Law of the Sea [Pursuant to Article 287(1) of UNCLOS (Annex VI)]

¹⁷⁸ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999), p5.

(iv) Politics

Fishing on the High Seas is highly susceptible to what Putnam sees as linkage politics where domestic politics are often inextricably linked with and even played out on the International plane. Putnam describes linkage politics as two games;¹⁷⁹

“The Politics of International Negotiations can be usefully conceived as a two level game. At the national level, domestic groups pursue their interests by pressuring the government to adopt favourable policies, and politicians seek power by constructing coalitions among those groups. At the international Level, National governments seek to maximise their own ability to satisfy domestic pressures, while minimising the adverse consequences of foreign developments.”

Another important factor is a States relative power to another State – that is the inequalities of state power. *“The main purpose of all strategies of foreign economic policy is to make domestic policies compatible with the international political economy.”*¹⁸⁰ Yet there are States because of increased clout, wealth, and organizational skills are able to invert this premise and make ‘make international political economy compatible with the domestic policies of that state.’ States with the ability to do so are able to further political agenda, even at the expense of the expense of the improved international relations. It is the opinion of many commentators that short term political agenda by some states that undermines the international political process is not always intended. Faeron argues that *“it is still true that international political outcomes such as a balance of power are the direct, if sometimes unintended, result of individual states’ foreign policy choices.”*¹⁸¹

Relationships between states are a decisive factor in the way in which high seas policy is implemented. States that can politic more readily will arguably have an increased ability to shape that policy. Furthermore just as inter-state relationships are central to establishing ‘institutional arrangements’ that address problems and develop ‘plans of action’,¹⁸² they are also responsible for the development of some of the problems, including overcapitalisation and subsidies, overfishing, excessive by catch, abuse of habitat and inequitable distribution of benefits.¹⁸³

B THE LEGAL FRAMEWORK

The Legal Framework of the High Seas Fishery is dominated by UNCLOS – that is, it is at the very centre of the contemporary regime that governs all aspect of the world’s seas and oceans and is often described as a ‘comprehensive constitution for the oceans.’¹⁸⁴ UNCLOS was

¹⁷⁹ Robert D. Putnam, “Diplomacy and Domestic Politics: The Logic of Two-Level Games” [1988] *International Organization*, (Summer, 1988), 42(3): 427-460, 434.

¹⁸⁰ Peter J. Katzenstein, ed., *Between Power and Plenty: Foreign Economic Policies of Advanced Industrial States* (Madison: University of Wisconsin Press, 1978), p. 4 cited in Robert D. Putnam, “Diplomacy and Domestic Politics: The Logic of Two-Level Games” [1988] *International Organization*, (Summer, 1988), 42(3): 427-460, 431.

¹⁸¹ James D. Fearon, “Domestic Politics, foreign policy, and the Theories of International Relations” [1998] *Annual Review Political Science* 1:289-313, 295.

¹⁸² Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 26.

¹⁸³ William T. Burke, “Compatibility and Precaution in the 1995 Straddling Stock Agreement” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) pp105-126 at pp105-107.

¹⁸⁴ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 32; T.B. Koh, “A Constitution for the Oceans” Statement at Final

negotiated over a period of eight years (from 1974-1982) and throughout those eight years – the issues of deep sea bed mining dominated the agenda.¹⁸⁵ Haward argues that UNCLOS is built upon the key principle of “elaborating on the rights of states”.¹⁸⁶ This is certainly the case in the context of High Seas Fisheries; where historic principles of *Freedom Fishing on the High Seas* and exclusive *Flag State Responsibility* are protected, despite the existence of weaker provisions affecting actions outside the EEZ – that prompt States to co-operate in furtherance of sustainable management of the High Seas Fishery.¹⁸⁷ This has been something that it has been unsuccessful. Yet in UNCLOS defence, the convention was negotiated in the 70s and early 80s, and dominated with 1960’s and 1970s worldviews which according Haward and Vince, emphasized the commercial aspects of the ocean rather than the conservation and sustainable aspects.¹⁸⁸ UNCLOS certainly predates the Precautionary Principle and for the matter the precautionary approach that is advocated by CCAMLR so ardently today.¹⁸⁹

In order to better ascertain the shortcomings of the high seas fisheries regime as provided by UNCLOS it is necessary to look at the dominant principles but also the lesser principles that call for sustainable high seas fisheries management.

(i) The Principle of Freedom Fishing on the High Seas

UNCLOS amongst other things including freedom of navigation, guarantees freedom to fish the High Seas to all States;¹⁹⁰

“Article 87 - Freedom of the high seas

1. *The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, inter alia, both for coastal and land-locked States:*

[...]

(e) freedom of fishing, subject to the conditions laid down in section 2; [...]

2. *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.*

This provision is unequivocal in its scope – and guarantees freedom to fish to all states “*whether coastal or land-locked.*” Although a states right to fish on the high seas is guaranteed by UNCLOS, it must be pointed out that that right is not completely unfettered. Freedom to fish on the high seas is conditional on the other provisions laid down in the convention, other rules of

Session of Third Conference on the Law of the Sea, Montego Bay December 1982, in Myron H. Nordquist, *United Nations Convention on the Law of the Sea, 1982: a commentary, Volume 1* (Martinus Nijhof Publishers, AD Dordrecht, the Netherlands, 1985) pp 11-17.

¹⁸⁵ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p33.

¹⁸⁶ *Ibid*, p 32.

¹⁸⁷ *Ibid*.

¹⁸⁸ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 34.

¹⁸⁹ Rachel Baird, “CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries” (2005) VUWLR 36: 733; Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299

¹⁹⁰ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M 1245 (1982), Article 87.

international law and *with due regard for the interests of other States in their exercise of the freedom of the high seas*. Furthermore when one reads article 87 with article 116;¹⁹¹ it is clear that a State's right to fish the high seas is subject to:

- ✗ The State's treaty obligations;
- ✗ The rights, duties and interests of coastal States provided for, inter alia, in article 63, paragraphs 1 and 2 (for stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it) and articles 64 to 67 (highly migratory species, marine mammals, anadromous stocks, catadromous species); and
- ✗ The provisions of the Convention on the conservation and management of the living resources of the high seas (articles 117 to 120).¹⁹²

However, although the above right is not absolute, it is apparent that the principle is clearly stated. This contrasts strongly with the conditions placed on the principle which are the subject of much uncertainty; where states are required to 'take or to co-operate with other states in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.'¹⁹³ The provisions of the Convention on the conservation and management of the living resources of the high seas further require states to 'protect and preserve the marine environment – which also includes rare and fragile ecosystems as well as the habitat of depleted, threatened, or endangered species and other forms of marine life.'¹⁹⁴ In addition to these duties imposed on states while they fish the high seas; are the additional duties that pertain to highly migratory species, marine mammals, anadromous stocks, catadromous species which are set out in Part V of UNCLOS.¹⁹⁵

Yet it is a widely held view that the duties of the High Seas fishing states are somewhat vaguely set out – Article 118 sets out that; "*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 sub-regional or regional fisheries organizations to this end.*" However there is no provision on the form of these *sub-regional or regional fisheries organizations*. Furthermore practically these *sub-regional or regional fisheries organizations* have their hands tied for they may have the functional jurisdiction to set the *Total*

¹⁹¹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Article 116: Right to fish on the high seas *All States have the right for their nationals to engage in fishing on the high seas subject to: (a) their treaty obligations; (b) the rights and duties as well as the interests of coastal States provided for, inter alia, in article 63, paragraph 2, and articles 64 to 67; and (c) the provisions of this section.*" ('Provisions in this section' refers to the UNCLOS section heading: *Section 2. Conservation and Management of the Living Resources of the High Seas* [which includes articles 116-120]).

¹⁹² Rüdiger Wolfrum, "The potential of the International Tribunal for the Law of the Sea in the management and conservation of marine living resources" [2007] *Presentation given Meeting of the Friends of ITLOS* (by the President of the International Tribunal for the Law of the Sea, Permanent Mission of Germany to the United Nations, New York. 21 June 2007). *The specific provisions of articles 63 and 64 to 67 ensure that the conservation and management of particular fish stocks in the exclusive economic zone and in areas of the high seas are harmonized.*

¹⁹³ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Article 117; Kristina M Gjerde "Moving from Words to Action" [2005] *The International Journal of Marine and Coastal Law* 23(3-4): 323-344, 329.

¹⁹⁴ Ibid, Article 197.

¹⁹⁵ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Articles 64 –67.

Allowable Catch (“TAC”) and *establish other conservation measures for the living resources in the high seas*¹⁹⁶ the *principle of exclusive flag state jurisdiction* precludes these bodies from exercising any enforcement jurisdiction that could either ensure compliance with these measures. Ganouveli writes;¹⁹⁷

“The obligation of institutionally concerted action becomes even more crucial in the high seas, where the individuality of each flag state reigns supreme and may easily nullify an attempt at conservation or even rational exploitation. Indeed, the exclusivity of Coastal State jurisdiction in the EEZ, undoubtedly with its formidable enforcement powers included, has also pushed the world fisheries both outwards and deeper: between 1992 and 2002 the global marine fish capture in the high seas rose from 5% to 11% of the total yield, with more than 30% of it constituting illegal, unreported and unregulated (“IUU”) fishing.”

When it comes to enforcing sub-regional conservation and TAC measures on the high seas pursuant to article 118 of UNCLOS, the convention is silent. In fact the only rule that is express about enforcement jurisdiction on the high Seas is article 117 that reiterates the principle of exclusive flag state jurisdiction on the high seas –¹⁹⁸

“All States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.”

Article 117 clearly leaves the enforcement of such measures to the Flag State, which has the effect of rendering the *sub-regional or regional fisheries organizations* powerless to implement their obligations pursuant to the convention.

(ii) The Principle of Exclusive Flag State Jurisdiction on the High Seas¹⁹⁹

The express duty imposed in article 117 on flag States (to cooperate with other States in order to conserve and manage fisheries in areas of the high seas) confirms the law of nationality of ships and exclusive flag-State jurisdiction as contained in articles 91 and 94 of UNCLOS – which is that compliance and enforcement on the oceans with respect to high seas fisheries is to be maintained principally through flag States.²⁰⁰

Article 94 states unequivocally that *“Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.”* This exclusive enforcement jurisdiction over ships flying the flag of the state is reinforced in the context of a breach where even in situations where a coastal state may have prescriptive jurisdiction over that said vessel, that *“state which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.”*²⁰¹

¹⁹⁶ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Article 119.

¹⁹⁷ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhoff Publishers, Leiden, the Netherlands, 2007) pp 105-106.

¹⁹⁸ Above at n.196, Article 117.

¹⁹⁹ *Ibid*, Articles 89, 92 and 94.

²⁰⁰ Rüdiger Wolfrum, “The potential of the International Tribunal for the Law of the Sea in the management and conservation of marine living resources” [2007] *Presentation given Meeting of the Friends of ITLOS* (by the President of the International Tribunal for the Law of the Sea, Permanent Mission of Germany to the United Nations, New York. 21 June 2007).

²⁰¹ Above at n.196, Article 94(6).

Article 91 states that ‘*every state fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag*’ yet this freedom is conditional on the requirement for there to be “*a genuine link between the State and the ship.*” This requirement of a *genuine link* as we shall see has been problematic – and as yet there is still no solid legal test as to the extent of that genuine link.²⁰²

Ganouveli reminds us that the defects of the principle of exclusive flag state jurisdiction are well known.²⁰³ She argues and I agree, that the exclusive flag state jurisdiction has been found wanting in the context of international shipping –²⁰⁴

“*The suggestion that lax flag state machinery, unable and unwilling to properly police bulky ocean-going vessels, would actually effectively control the actions of a diverse fishing fleet beggars belief.*”

Yet the principle becomes more intricate still, when the requirement for a *genuine link* is required, for vessels that are party to effective *flag state machinery* are free to re-register with other States that have ‘open registries’ and offer ‘flags of convenience’ fish the high seas with impunity.²⁰⁵

C “RFMOs”- THE ‘HOBBLED’ MANAGEMENT MECHANISM?

RFMOs [or as they are described in UNCLOS; *sub-regional or regional fisheries organizations*] have been delegated the critical role of managing the high seas fisheries and ensuring a balance between fisheries conservation and fisheries exploitation – a balance they have consistently been unable to achieve.²⁰⁶ They are the primary mechanism for achieving the cooperation between and among coastal states and fishing nations that is essential for the effective management of international fisheries.²⁰⁷ As established above, RFMOs have competence or functional jurisdiction from UNCLOS, where they are charged with establishment the conservation and management measures on the basis in particular of scientific advice. This competence is modelled on part of the 1958 Geneva Convention on Fishing and Conservation of Living Resources of the High Seas do not really address the inherent weaknesses of the high seas fishing regime, especially article 119 of UNCLOS.²⁰⁸ It is Churchill and Lowe’s contention that the only way in which “meaningful management of high-seas fisheries is possible is through international co-operation, especially through Regional Fishery Commissions.”²⁰⁹

The first RFMOs date back to the start of the century but the majority of them have been set up in the last forty years. The development of their role is closely linked with the growing awareness

²⁰² Kristina M Gjerde “High Seas Fisheries Management under the Convention on the Law of the Sea” in David Freestone et al (ed) *The Law of the Sea* (Oxford University Press, Oxford, 2006) 281-307, 292.

²⁰³ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) pp 107.

²⁰⁴ *Ibid.*

²⁰⁵ See Chapter IV of this thesis: IUU Fishing.

²⁰⁶ Denzil G.M. Miller, *Sustainable Southern Ocean Fisheries: A Model of Responsibility?* (Remarks on Award of WWF Duke of Edinburgh Conservation Medal, Buckingham Palace, London. 17 October 2007).

²⁰⁷ Michael Lodge, *Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations* [2007] (Chatham House, London, March 2007. Energy, Environment and Development Programme - EEDP BP 07/01).

²⁰⁸ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999) p297.

²⁰⁹ *Ibid.*

of the need for fish stocks to be managed on a sustainable basis.²¹⁰ For most part RFMOs have been little more than advisory institutions. However since the 1970s with a growing awareness of the need for a more sustainable approach to fishing, RFMOs began to undertake management tasks which included the adoption of conservation measures.²¹¹

The range of RFMOs is very varied. Some were set up under the FAO and others quite independently of that organisation.²¹² Of the former, a number are purely consultative and have no administrative organisation of their own (e.g. CECAF) while others have management powers and autonomous structures and budgets (e.g. IOTC).²¹³ Some are concerned with all biological resources in the area for which they are responsible (e.g. NAFO or CCAMLR).²¹⁴ Others focus on a stock or group of stocks like tuna (e.g. CCSBT or ICCAT).²¹⁵ Their geographical area of competence may be limited to the high seas or include the high seas and the exclusive economic zones (EEZs) of coastal States on account of the biological unity of the stocks. Many commentators argue that it is this variation in form and function has been a major factor in the perception that RFMOs are *ad hoc* institutions unable to undertake its high seas management function which in accordance with UNCLOS. Denzil Miller writes;²¹⁶

“Drawing largely on common sense, it follows that negative outcomes from any management action or lack thereof, are confounded by increased risk due to uncertainty of purpose, function or form.”

So far, by most accounts, RFMOs have so far failed to live up to their promise – there are very few examples of RFMOs sustainably managing their target stocks.²¹⁷ For example; one RFMO, ICCAT [*International Commission for the Conservation of Atlantic Tuna*] has been so ineffective at conservation tuna stocks that critics of ICCAT express the ineffectiveness of the RFMO by deriding the acronym and calling it the *International Conspiracy to Catch All Tuna*. Rummiger argues that recently “ICCAT lived up to that derisive nickname by setting 2011 catch levels for Atlantic bluefin tuna at basically the same levels as 2010 - 12,900 tons, down from 13,500 - despite the

²¹⁰ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document*

²¹¹ *Ibid.*

²¹² Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) p 13 - The oldest regional fisheries organization was established in 1902. However, most of them were created after World War II and as recently as 2001. Although their nature and functions vary greatly, a general distinction can be made between FAO and non- FAO Regional Fisheries Bodies (RFBs). Furthermore, from a functional viewpoint, RFBs may have an advisory role or a management or regulatory function, depending on the type of tasks they are designed for and their constitutions. FAO RFBs that only perform an advisory role are those established under Article 6 of the FAO Constitution, whereas FAO RFBs or RFMOs established under Article 14 of the FAO Constitution may also recommend the adoption of measures and carry out programmes to ensure conservation and management of fishery resources. See Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 682 at n 66 – There are currently 44 regional RFB, 20 of which are RFMOs – the distinguishing feature of an RFMO is that unlike a RFB, it is able to adopt measures that are binding on its members.

²¹³ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document*

²¹⁴ *Ibid.*

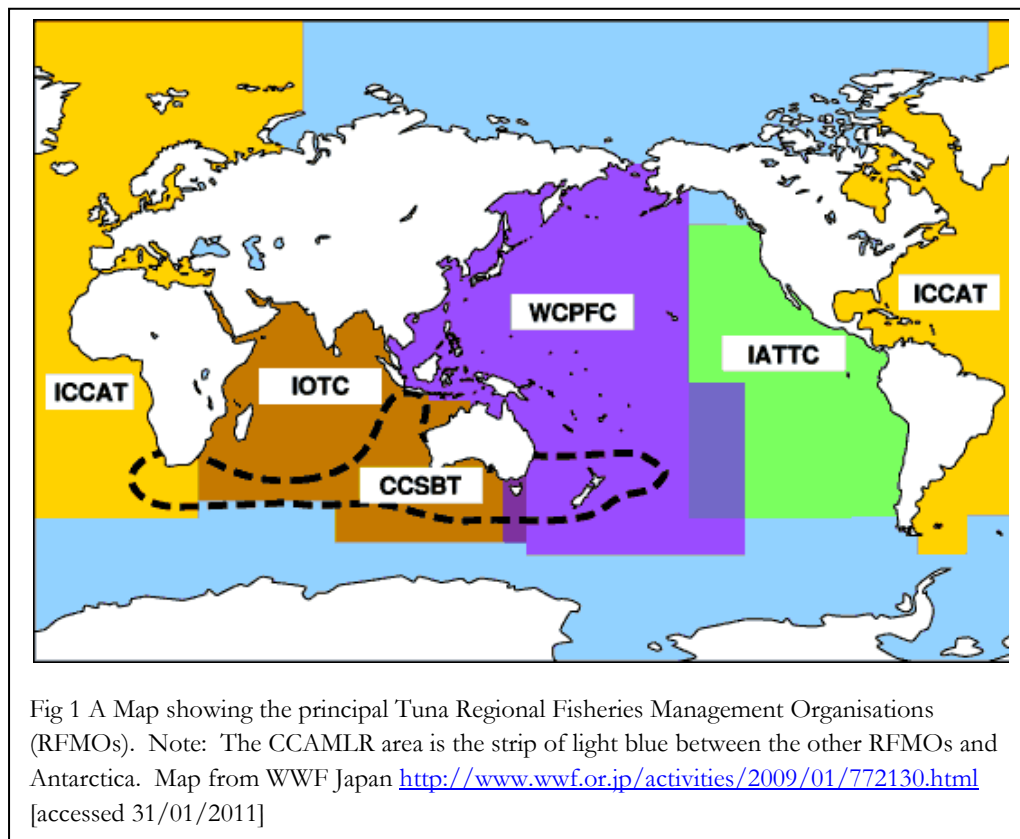
²¹⁵ *Ibid.*

²¹⁶ Denzil G.M. Miller, *Sustainable Southern Ocean Fisheries: A Model of Responsibility?* (Remarks on Award of WWF Duke of Edinburgh Conservation Medal, Buckingham Palace, London. 17 October 2007).

²¹⁷ Michael Lodge, *Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations* [2007] (Chatham House, London, March 2007. Energy, Environment and Development Programme - EEDP BP 07/01).

pleas of conservation scientists and the bluefin's place on the International Union for Conservation of Nature's "Red List" of endangered or critically endangered species.”²¹⁸

Many commentators argue that RFMOs are ineffective primarily because although they have express functional jurisdiction to allocate catches, and propose conservation measures,²¹⁹ they lack the requisite prescriptive and enforcement jurisdiction to see them through. Furthermore, they lack these ‘hard’ jurisdictions in the face of a declaration of exclusive flag state jurisdiction over vessels that fly the flag of that state.



RFMO powers include, in addition to technical measures (such as mesh sizes and minimum sizes for fish), the fixing on a regular basis of the TAC and the rules for their allocation among the contracting parties.²²⁰ Although many accuse RFMOs of ascertaining the TAC based on the maximum sustainable yield. Miller argues that “managing target stocks to ensure maximum sustainable yield is the bare minimum [that RFMOs and States] should be striving for.”²²¹ Increasingly, RFMOs have management machinery (monitoring of catches, statistical

²¹⁸ Marc Rumminger, “Boycotting bluefin isn’t enough—time to turn on the siren” [2011] *Grist: Beacon in the Smog Blog*, 11 January 2001, <http://www.grist.org/article/food-2011-01-11-boycotting-bluefin-isnt-enough-time-to-turn-on-the-siren> [accessed 31/01/2011].

²¹⁹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Article 117.

²²⁰ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document* http://trade.ec.europa.eu/doclib/docs/2007/march/tradoc_133506.pdf [accessed 31/01/2011]

²²¹ Denzil G.M. Miller, *Sustainable Southern Ocean Fisheries: A Model of Responsibility?* (Remarks on Award of WWF Duke of Edinburgh Conservation Medal, Buckingham Palace, London. 17 October 2007).

programmes, monitoring of trade flows) that enables them to monitor contracting parties' implementation of conservation measures.²²² RFMOs also have competence to inspect, control and put vessels under surveillance to verify compliance by the contracting parties.²²³ The most important feature of RFMO measures is that once they are adopted, they are binding on their members. Furthermore these measures also become mandatory for contracting parties which have not exercised the right to object normally provided for in the regulations of the RFMOs.²²⁴

RFMOs then have competence enough for contracting parties or members who are compliant with the measures set, or are able to influence RFMOs through the supply of scientific data. But what of flagged RFMO members who don't follow the rules? And what if they are from member states that are lax in their enforcement of RFMO measures on their flagged vessels? RFMOs are then forced to rely on Flag State Jurisdiction, and as Gavouneli points out – “the defects of flag state jurisdiction are well known.”²²⁵ And then there are those who re-flag their vessels to States that are not party to any RFMO agreement?²²⁶

The EU Trade commission argues that the “increasingly binding nature of the management measures adopted by the RFMOs may in fact encourage certain ship owners to reflag their vessels to flags of other countries which are not members of the RFMOs.”²²⁷ This IUU fishing behaviour of non-RFMO compliance or the re-flagging of vessels is not only tragic to the management of high seas fishstocks, it is tragic for small RFMO compliant States that rely on RFMOs and international co-operation to protect their livelihood. Jim Anderton [the then Chair of the Pacific Islands Forum Fisheries Committee] in a statement that expressed his frustration at the lack of progress made at the fourth annual meeting of the WCPFC in 2007 said,²²⁸

“[...] Overfishing of bigeye and yellowfin tuna stocks is already occurring, and urgent action is required to maintain these stocks above globally-accepted standards for sustainable limits [...] Healthy tuna fisheries are the economic engine for most Pacific Island countries and, for some, these fisheries are their greatest source of income. But Pacific tuna fisheries have reached a critical point. The scale and intensity of fishing is ever increasing. If we don't address things now, the whole Pacific region will face huge economic issues in the long-term. The highly migratory tuna fisheries in the Pacific region are worth about \$NZ3 billion per year. They are probably the only remaining healthy tuna stocks left on the planet, as most high-value tuna and tuna-like fish stocks in other oceans of the world are now seriously depleted or fast heading that way [...] It's simply disingenuous of the non-Pacific fishing nations to say there is not enough information

²²² EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document* p 3; see also Charlotte De Fontaubert & Indrani Lutchman (Eds), *Achieving sustainable fisheries: implementing the new international legal regime* (IUCN - International Union for Conservation of Nature and Natural Resources, Cambridge, UK. 2003). Chapter 5, pp 44-54.

²²³ See the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, C 2009/REP Corr. 3, Report of the Thirty-sixth Session of the FAO Conference on Fisheries, FAO (Food and Agriculture Organisation of the United Nations) Rome, 18-23 November 2009.

²²⁴ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document* ; see also Charlotte De Fontaubert & Indrani Lutchman (Eds), *Achieving sustainable fisheries: implementing the new international legal regime* (IUCN - International Union for Conservation of Nature and Natural Resources, Cambridge, UK. 2003). Chapter 5, pp 44-54.

²²⁵ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) pp 107.

²²⁶ See Chapter IV(B) of this thesis entitled IUU Fishing: Open Registries and Flags of Convenience.

²²⁷ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document*, p 3.

²²⁸ Jim Anderton, “Distant nations block tuna conservation measures” [2007] *Pesca2.com, New Zealand Ministry of Fisheries Press Release*, 12/12/2007.

on which to base conservation measures [...] The aim of the proposed measures is to reduce the impact on juvenile bigeye and yellowfin tuna from large purse-seining vessels, and to reduce catches of adult bigeye tuna by longline vessels.”

IV ILLEGAL, UNREPORTED & UNREGULATED (“IUU”) FISHING

*“An old spectre haunts fisheries management today: governance without government.”*²²⁹

This provocative statement clearly illustrates how many commentators view the state of management of fishing on the high seas. Humankind’s efforts are perceived by many to be failing despite the successful completion of a codified body of International Law in UNCLOS which itself flowed from general customary international law. Instead we have a high seas regime that is dominated by two unequivocal freedoms that are steeped in international political history; the freedom to fish on the high seas²³⁰ and the exclusive flag state jurisdiction over vessels flying their flag.²³¹ In the face of more and more fisheries being affected by the heavy demand more for fish to fill supermarket refrigerators, and in the face of increased international demands to meet that demand sustainably, *“irresponsible operators have taken advantage of prevailing circumstances to optimise their own economic advantages, often to the detriment of the stocks concerned and at the expense of their more responsible competitors.”*²³² This ‘tragedy of the commons’²³³ has been a source of concern and has resulted in a game of cat and mouse between irresponsible fishers and the rest of the international community.²³⁴ Fishing inconsistently with international measures is essentially “irresponsible”, because it undermines the sustainable management of fisheries and marine ecosystems and also the improvement of ocean governance.²³⁵ Combating this “irresponsible” fishing on the high seas which has since been termed IUU fishing²³⁶ has come to preoccupy many RFMOs who are charged with not only managing fishstocks for responsible fishers but

²²⁹ O.S. Stokke, “Governance of High Seas Fisheries: The role of regime linkages” in D. Vidas and W. Ostreng (eds.), *Order for the Oceans at the Turn of the Century* (Kluwer Law International, The Hague, 1999), pp. 157-172, 157.

²³⁰ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Article 87.

²³¹ *Ibid*, 89, 92 and 94

²³² Denzil G.M. Miller, “Patagonian Toothfish – The Storm Gatherers” in OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), pp105–145, 105.

²³³ Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

²³⁴ See Miller (2004) p 106 at n 8 - There are a number of international instruments that set out provisions to address irresponsible fishing practices. These include the UNCLOS, the 1993 *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas* (the “FAO Compliance Agreement”), 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* (the “United Nations Fish Stocks Agreement - UNFSA”) and the 1995 *Code of Conduct for Responsible Fisheries* (the “FAO Code of Conduct”). It must be emphasised that the Code was formulated as a practical framework to be applied in conformity with the other instruments listed and in light of, *inter alia*, the 1992 *Declaration of Cancun* [and the 1992 *Rio Declaration on Environment and Development*, in particular Chapter 17 of Agenda 21.14

²³⁵ Above at n 232.

²³⁶ The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) became the first RFMO to formally designate these activities as “Illegal, Unreported and Unregulated” (IUU) fishing in 1997. In 1999 FAO Committee on Fisheries (COFI) formally defined IUU fishing in an International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) and an attached implementation plan - International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing. FAO - (Food and Agriculture Organisation of the United Nations) Rome, 2001. (“IPOA-IUU”) <ftp://ftp.fao.org/docrep/fao/012/y1224e/y1224e00.pdf>

with coming up with new ways to ensure compliance by those irresponsible IUU fishers who circumvent regulatory controls.²³⁷ Rachel Baird points out;²³⁸

“[That] where flag States are either unwilling or unable to exercise effective control over their flagged fishing vessels, the existing law of the sea, with the exception of specific provisions in the UN Fish Stocks Agreement, does not permit third State enforcement. The resultant lacuna in international law whereby fishers can operate in an environment lacking effective regulation in which RFMOs and coastal States (beyond their EEZs) have no direct enforcement powers to prevent non-member States or third States from fishing unsustainably, has contributed to the growth of IUU fishing.”

A IUU FISHING ON THE HIGH SEAS

(i) What is IUU Fishing?

As we have already ascertained above IUU fishing is a manifestation of Hardin’s tragedy of the commons as a response to attempts by some states and RFMOs to implement a system of governance over the high seas fisheries, by fishing inconsistently with the proposed measures. IUU fishing is not only a serious global problem it is one of the principal impediments to the achievement of sustainable world fisheries. It represents a major loss of revenue globally, particularly for poorer countries like our pacific neighbours, where there is a strong dependency on fisheries for food and livelihoods.²³⁹ An OECD Report regards IUU Fishing as a serious global threat;²⁴⁰

“Illegal, Unreported and Unregulated fishing is a worldwide problem, affecting both domestic waters and the high seas, and all types of fishing vessels, regardless of their size or gear. Not only is it harmful to current global fish stocks, it also undermines the effectiveness of measures adopted nationally, regionally and internationally to secure and rebuild fish stocks for the future. By undermining effective management systems, IUU fishing activities not only generate harmful effects on economic and social welfare, but also reduce incentives to comply with rules.”

But what is exactly is IUU fishing? The term IUU was first coined in 1997 by CCAMLR, “where it was used to describe unauthorised fishing for Patagonian toothfish in the CCAMLR Convention Area by non-contracting parties as well as undeclared or misreported catches by CCAMLR members.”²⁴¹

However the best description of what IUU fishing is, is to be found in the first chapter of the IPOA-IUU which was drafted and implemented in 2000 following the FAO Ministerial Meeting on Fisheries where States adopted the Rome Declaration on the Code of Conduct for Responsible Fisheries, which declared the intention of its subscribers to “develop a global plan

²³⁷ Denzil G.M. Miller, “Patagonian Toothfish – The Storm Gatherers” in OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), pp105–145, 105-106.

²³⁸ Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, The Netherlands) pp 7-8.

²³⁹ Isolina Boto, Camilla La Peccerella and Silvia Scalco (CTA), “Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries” [2009] *A Reader: Resources on Illegal, Unreported and Unregulated (IUU) fishing* (Briefing session n° 10. Brussels Rural Development Briefings A series of meetings on ACP-EU development issues, Brussels, 29 April 2009) p5.

²⁴⁰ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France. 2005) p 21.

²⁴¹ HSTF “Closing the Net: Stopping Illegal Fishing on the High Seas” (*Summary proposals of the Ministerially-Led Task Force on IUU Fishing on the High Seas*) PB 11676 (March 2006) p 93.

of action to deal effectively with all forms of illegal, unreported and unregulated fishing including fishing vessels flying flags of convenience.”²⁴²

Chapter II of the IPOA-IUU accurately defines IUU Fishing:²⁴³

✗ **Illegal fishing** refers to activities:

- Conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;
- Conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organisation but operate in contravention of the conservation and management measures adopted by that organisation and by which the States are bound, or relevant provisions of the applicable international law; or
- In violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organisation.

✗ **Unreported fishing** refers to fishing activities:

- Which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
- Undertaken in the area of competence of a relevant regional fisheries management organisation which have not been reported or have been misreported, in contravention of the reporting procedures of that organisation.

✗ **Unregulated fishing** refers to fishing activities:

- In the area of application of a relevant regional fisheries management organisation that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organisation, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation; or
- In areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.

The table below simplifies the IPOA-IUU definition somewhat & simply shows the variety of IUU Fisheries –²⁴⁴

Area	EEZs	High seas			
		With RFMOs			Without RFMOs
Actors	Foreigners	Party	Co-operating States	Non-party	Any
Illegal					
Unreported					
Unregulated					

Source: OECD Secretariat.

So in summary, **illegal** fishing on the high seas is committed by vessels flagged to members of an RFMO (including cooperating non-parties) but which operate in violation of the rules established by the RFMO [On the EEZ it is committed by vessels engaging in unauthorised foreign fishing

²⁴² HSTF “Closing the Net: Stopping Illegal Fishing on the High Seas” (Summary proposals of the Ministerially-Led Task Force on IUU Fishing on the High Seas) PB 11676 (March 2006) p 93.

²⁴³ International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU), FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001, (Chapter II - Nature and scope of IUU fishing in the International Plan of Action) pp 2-3; see also HSTF “Closing the Net: Stopping Illegal Fishing on the High Seas” (Summary proposals of the Ministerially-Led Task Force on IUU Fishing on the High Seas) PB 11676 (March 2006) p 93.

²⁴⁴ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005) p 22.

within EEZs]; **unreported** fishing on the high seas is committed when a catch is misreported or not reported to national authorities or RFMOs [*On the EEZ it is misreported or not reported catches by foreign vessels within EEZs*]; & **unregulated** fishing on the high seas is committed by stateless vessels or vessels flagged to non-members of RFMOs outside the rules of the RFMO.²⁴⁵ Furthermore it must be borne in mind that IUU fishing involves “complex webs of actions and entities and is not limited to the illegal harvesting of fish but also includes the shipment, processing, landing, sale and distribution of fish and fishery products.”²⁴⁶ Support and provisioning of vessels and providing financing are also part of what Gueye terms the “IUU continuum.”²⁴⁷

IUU fishing is an enormous problem, and presents a major obstacle to achieving sustainable fisheries and effective fish stock management on the high seas. Preventing IUU fishing provides an enormous challenge to national, regional and international bodies attempting to manage fisheries.²⁴⁸

(ii) What is the impact of IUU Fishing?

The biological and ecological impacts of IUU fishing are self-evident.²⁴⁹ We have already established that IUU fishing emphasises the fragility and threatens the sustainability of high seas fishstocks and undermines RFMO measures that are put in place to conserve those stocks.²⁵⁰ It is common knowledge that the modern commercial fishing vessel is most often a trawler — “a large ship that pulls weighted nets along the seafloor, destroying all flora and fauna in its path.”²⁵¹ This trawling is one of the ways IUU activities has adverse effects on the marine ecosystem as a whole, notably the populations of seabirds, marine mammals, sea turtles and bio-diversity in general, with colossal by catch, and the targeting of species like krill.²⁵² Also what is important about IUU Fishing is that its effects are more impacting because the behaviour is difficult to monitor, and so any attempt at monitoring fishstocks based on amounts of landed fish by RFMO compliant vessels is almost impossible. Furthermore the uncertainty that is added to the calculation of the MSY, coupled with the need to use the precautionary approach will put even

²⁴⁵ HSTF “Closing the Net: Stopping Illegal Fishing on the High Seas” (*Summary proposals of the Ministerially-Led Task Force on IUU Fishing on the High Seas*) PB 11676 (March 2006) p 95; Food and Agriculture Organization of the UN, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (“IPOA-IUU”) (FAO, Rome, 2002).

²⁴⁶ Ndiaga Gueye, “General considerations on Illegal, Unreported and Unregulated (IUU) Fisheries, Special paper prepared for the Fighting against Illegal, Unreported and Unregulated Fishing” (25th November 2008) lunch side-event in the context of the 16th ACP-UE Joint Parliamentary Assembly, Port Moresby (Papua New Guinea); Also see OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005).

²⁴⁷ *Ibid.*

²⁴⁸ David Midson “A New Global Record for an Old Threat” (2009) 23 A&NZ Mar LJ 69, 70.

²⁴⁹ Isolina Boto, Camilla La Peccerella and Silvia Scalco (CTA), “Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries” [29 April 2009] *A Reader: Resources on Illegal, Unreported and Unregulated (IUU) fishing* (Briefing session n° 10. Brussels Rural Development Briefings - a series of meetings on ACP-EU development issues, Brussels) p 12.

²⁵⁰ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005. p 34.

²⁵¹ Paul Greenberg, “Other Fish to Fry”(September 8 2006) New York Times.

²⁵² Paul Greenberg, “Seafood Print” (October 2010) *National Geographic Magazine* 218(4): 78-89; OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005. p 34.

more pressure on compliant fishers.²⁵³ Arguably in this way an RFMO may not even know that a fishstock is in danger until the stock is in a dire condition.²⁵⁴ It is in this way that IUU *over*-fishing will eventually facilitate total fishstock collapse.²⁵⁵

The social-economic impacts of IUU fishing are both short term and long term and direct and indirect. The short-term economic impacts of IUU fishing are less fish for compliant the fisher which means less employment (both fishing and processing), lower incomes and lower export revenues.²⁵⁶ Longer-term impacts may be more serious as target stocks become overexploited and legal fisheries have to stop operating due to fishery collapse.²⁵⁷ Of the direct impacts the most important include diminished fisheries' contributions to the gross domestic product (by the amount of IUU fishing) as well as impacts on employment, port and export revenues, fees and taxes. While direct losses may be quantifiable, indirect effects are equally important even if they are more difficult to ascertain. The social costs associated with IUU fishing are significant; IUU fishing has an adverse impact on the livelihoods of fishing communities, particularly in developing countries.²⁵⁸ The follow on effects are such that the lack of income from smaller 'legal' catches results in fishers plying the high seas for a catch often in inadequate safety conditions. Ultimately IUU fishing threatens the survival of coastal communities in developing countries and jeopardizes the viability of much relied upon resources.²⁵⁹ "The important message emerging from this is that IUU impacts are often far greater than what can be measured."²⁶⁰

(iii) What are the Drivers of IUU Fishing?

The central premise of this dissertation is that over-fishing and IUU fishing on the high seas began when UNCLOS enclosed 90% of the best fishing zones under coastal state jurisdiction in EEZs in accordance with norms that stretch back to the Roman application of *res nullius* and applying the contrary doctrine of *res communis* to the high seas,²⁶¹ which is confounded by strong

²⁵³ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005, ISBN- 9264010874) p 35.

²⁵⁴ Isolina Boto, Camilla La Peccerella and Silvia Scalco (CTA), "Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries" [29 April 2009] *A Reader: Resources on Illegal, Unreported and Unregulated (IUU) fishing* (Briefing session n° 10. Brussels Rural Development Briefings - a series of meetings on ACP-EU development issues, Brussels) p 12.

²⁵⁵ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005) p 35.

²⁵⁷ *Ibid.*

²⁵⁸ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005) p 36.

²⁵⁹ Ndiaga Gueye, "General considerations on Illegal, Unreported and Unregulated (IUU) Fisheries, Special paper prepared for the Fighting against Illegal, Unreported and Unregulated Fishing" (25th November 2008) lunch side-event in the context of the 16th ACP-UE Joint Parliamentary Assembly, Port Moresby (Papua New Guinea); Also see OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005).

²⁶⁰ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005, ISBN- 9264010874) p 35.

²⁶¹ United Nations Convention on Law of the Sea ("UNCLOS") (10 December 1982) 1833 UNTS 3, art 56; Budislav Vukas and Davor Vidas, "Flags of Convenience and High Seas Fishing: The Emergence of a Legal Framework" in Olav Schram Stokke (ed) *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes* (Oxford University Press, Oxford, 2001) 53-90, 55.

Grotius freedoms to navigate and fish²⁶² reasserted in UNCLOS alongside comparably weak flag state obligations of co-operation with coastal state conservation measures for the preservation of fish stocks.²⁶³ With the reassertion of the principle of exclusive flag state jurisdiction over flagged vessels – there is arguably nothing [save political will and a sense of conservation and sustainability] to procure flag state compliance with any measures implemented by RFMOs. Therefore arguably IUU fishing on the high seas is fundamentally driven by the in failure of governments to comply with RFMOs and impose proper limits on permissible catches of fish.²⁶⁴

Yet according to Baird there are a myriad of factors that contribute to the increased harvesting of global marine fishstocks and the emergence of IUU fishing; including;²⁶⁵

“The impact of the industrialisation of the fishing industry [that is mechanisation and improved spotting and catching technology, snap freezing, and the advent of super-trawlers]; increases in both human consumption and the size of the global fishing fleet; the introduction of government subsidies which have contributed to the creation of an artificial environment of profitability; increased competition amongst fishers and the entry of large scale commercial fishing entities into the marine fishing industry.”

A Economic and Social Drivers

However as we have already established “high economic returns” of regulated fish is a significant driver of IUU fishing, coupled with a “low risk of apprehension” – IUU fishing becomes an attractive undertaking to many vessels who ply the high seas in search of a living.

“IUU fishing persists because it pays.”²⁶⁶ IUU fishing activities can be extremely profitable due to lower cost structures than for compliant fishing activities.²⁶⁷ Furthermore the fish targeted on the high seas by IUU fishers, in general, have a very high market value.²⁶⁸ These two factors provide a high incentive for IUU fishing. There are also social costs associated with IUU fishing which has an enormous effect on fishing communities, particularly in developing countries, where many of the crew on IUU fishing vessels are from underdeveloped countries who can’t afford to be RFMO compliant.²⁶⁹ These socio-economic drivers contribute to the temptation for vessels to re-flag to states with open registers. What’s more there is no real sanction that works as a disincentive to re-flag.

There are significant economic incentives which attract transnational investment in what has become a multi-million dollar business. The problem of IUU fishing cannot be completely eradicated until the economic incentives are removed.

²⁶² UNCLOS 10 December 1982) 1833 UNTS 3, arts 87, 94; Rachel Baird, “CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries” (2005) 36 VUWLR 733, 733-4.

²⁶³ UNCLOS, arts 116-119.

²⁶⁴ David K. Schorr “Fishing Subsidies and the WTO” in Gary P. Sampson & W. Bradnee Chambers (eds) Trade, Environment and the Millenium (2nd edition, United Nations University Press, New York, 2002) 178.

²⁶⁵ Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, The Netherlands) pp 8-9.

²⁶⁶ OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004) 14.

²⁶⁷ OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD, 2004) 13.

²⁶⁸ OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004) 12.

²⁶⁹ OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD, 2004) 12.

Fishing vessel over capacity

There are simply “too many fishing boats chasing too few fish.”²⁷⁰ According to Stokke “overcapacity aggravates the problem of IUU operations in at least three ways”,²⁷¹

- ✗ It reduces the opportunity and profitability of legal operations;
- ✗ The periodic idleness associated with it provides incentives for individual vessel owners to pursue IUU options; and
- ✗ Overcapacity drives down the price of vessels, especially second-hand vessels but presumably new ones as well, thereby reducing the overall costs of illegitimate (as well as legitimate) harvesting operations.

Subsidies

Subsidies play a huge role in fishing depletion. It is ironic that the world’s most depleted fisheries seem to be in the waters that are dominated by fleets from countries with the largest fishery subsidy programmes.²⁷² These subsidies are designed to be an incentive for fishers to stay at home²⁷³, but instead they are used in ‘gear modernisation programmes’, ‘boat buy-back schemes’ and the improvement in fishing technology which serve to increase fishing capacity.²⁷⁴ When these new ‘super-trawlers’ funded with subsidies do go out and fish, they have a far more significant impact on fishstocks, because they can take so much at one time.

Lack of Penalties and Sanctions

The size of penalties and the risk of being apprehended is not generally a sufficient deterrent to IUU fishing activities.²⁷⁵ This is compounded by re-flagged vessels who re-register (or ‘flag-hop’) in countries that have largely non-compliant ‘open registers’ to get around RFMO restrictions.²⁷⁶ These vessels flying ‘flags of convenience’ don’t consider themselves subject to RFMO compliance.²⁷⁷ The lack of harmonisation of penalties across countries is also a concern.²⁷⁸

Although the normative principles enshrined in UNCLOS that enable fishing vessels virtually unfettered freedom to fish the high seas in the face of RFMO measures are the primary driver of IUU fishing, other economic and political factors have also promoted IUU fishing. However the promise of “high financial returns with a low exposure to risk in an environment of increased competition amongst legitimate fishers for the dwindling high seas fish stocks is an attractive

²⁷⁰ David K. Schorr “Fishing Subsidies and the WTO” in Gary P. Sampson & W. Bradnee Chambers (eds) *Trade, Environment and the Millennium* (2nd edition, United Nations University Press, New York, 2002) 176.

²⁷¹ Olav Schram Stokke and Davor Vidas, “Regulating IUU Fishing or Combating IUU Operations?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD, 2004) 36.

²⁷² Above at n. 270, p 179.

²⁷³ Kristina M Gjerde “High Seas Fisheries Management under the Convention on the Law of the Sea” in David Freestone et al (ed) *The Law of the Sea* (Oxford University Press, Oxford, 2006) 281-307, 301.

²⁷⁴ Above at n. 270, pp 179-80.

²⁷⁵ Ibid, 13.

²⁷⁶ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) 5(2) *MJIL* 299, 305.

²⁷⁷ Budislav Vukas and Davor Vidas “Flags of Convenience and High Seas Fishing: The Emergence of a Legal Framework” in Olav Schram Stokke (ed) *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes* (Oxford University Press, Oxford, 2001), 56.

²⁷⁸ OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD, 2004) 13.

business proposition for both out of work fishers and corporate entities.”²⁷⁹ Therefore it follows that controlling the ‘marketability’ of IUU fish and removing the economic incentive from landed IUU fish in favour of landed ‘legal’ fish at ports could have a significant impact on the proliferation of IUU fishing.

B OPEN REGISTRIES AND FLAGS OF CONVENIENCE

One of the key issues, if not the key issue in addressing IUU fishing, is the need to achieve more effective flag State control.²⁸⁰ Since article 94 of UNCLOS states quite unequivocally that “*every state shall effectively exercise its jurisdiction and control [...] over ships flying its flag.*”²⁸¹ This robust principle as we have established throughout this thesis leaves coastal states almost powerless to ensure flag-state compliance without the consent of the flag state, and totally unable to enforce its measures directly on that flagged vessel. In the absence of an express reference to the superiority of coastal state rights over those of high seas fishing states, freedom of high seas fishing prevails.²⁸² This presumption that a state will implement laws to govern and control ships flying its flag, in addition to fisheries treaties; the enforcement of generally accepted regulations, procedures and practices (eg IMO conventions and guidelines) and ILO standards for workers and seafarers – has lead to ‘flags of convenience’ where flag state compliance measures are relaxed and even the establishment of *open registers*²⁸³ where these FOC can be purchased. It has been estimated that there are over 1200 vessels that are registered to these FOCs which include; Belize, Honduras, Panama, St Vincent and the Grenadines and Equatorial Guinea, all known as flag of convenience States.²⁸⁴ Other States with open registers include: the Seychelles, Vanuatu, Sao Tome and Principe, the Netherlands Antilles, Togo and Russia.²⁸⁵

Re-flagging is relatively easy, and IUU vessels may re-flag several times in a fishing season to confuse management and surveillance authorities.²⁸⁶ Agnew provides an example of a vessel; San Rafael 1, that reflagged a number of times not only to confuse surveillance authorities, but also to get around the CCAMLR rules. According to Agnew the San Rafael 1, flagged to Belize [a well known FOC], which, following an encounter with a fisheries patrol vessel in December 1999 around South Georgia - changed its name to the Sil, then the Anyo Maru 22 and finally the

²⁷⁹ Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, The Netherlands) p 78.

²⁸⁰ D. Doulman, ‘Illegal, Unreported and Unregulated Fishing: Mandate for an International Plan of Action’ (paper prepared for Expert Consultation on IUU Fishing organised by the Government of Australia in cooperation with the FAO, Sydney, 15-19 May 2000) p 1 at para. 5.

²⁸¹ UNCLOS art 94.

²⁸² Dean Bialek, “Measures Under International Law for the Conservation of the Patagonian Toothfish in the Southern Ocean” (2003) 34 ODIL 105, 114.

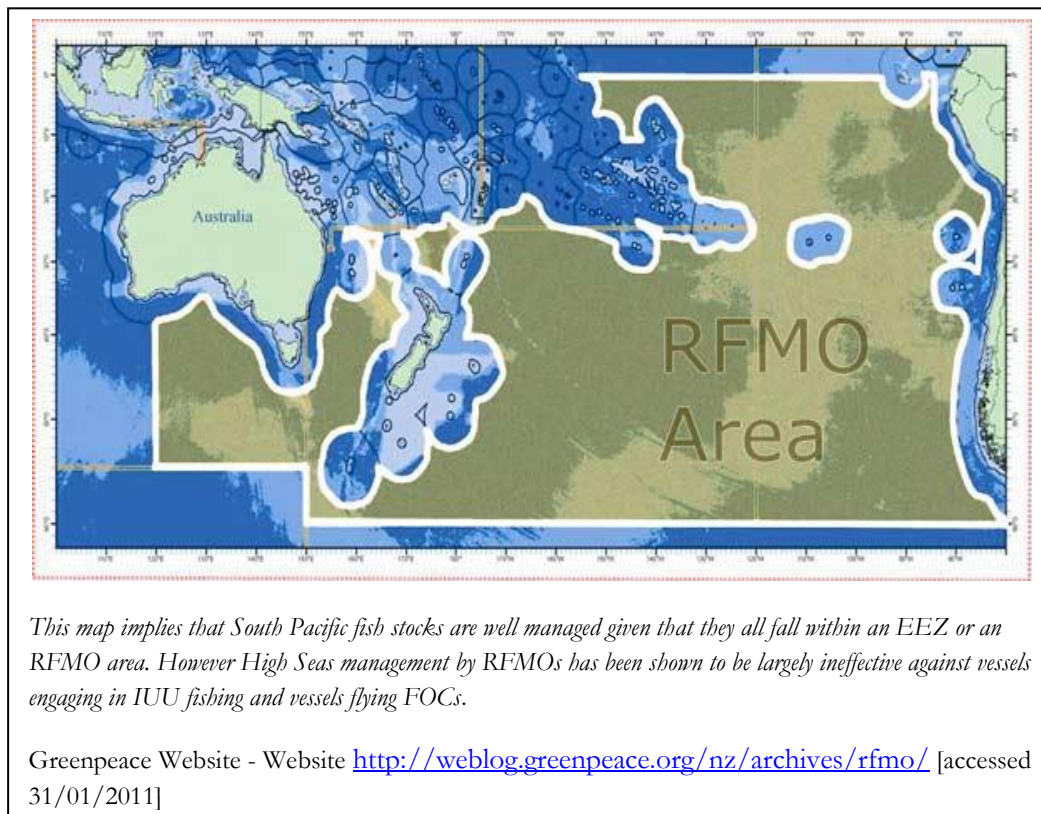
²⁸³ Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, The Netherlands) pp 61 - An *open register* has been referred to as the situation where foreign vessel owners having no real connection with States maintaining open registers, register their vessels in such states to seek benefits such as avoiding the laws and controls of a state with which they might have a stronger connection

²⁸⁴ *Ibid.*

²⁸⁵ *Ibid.*; FAO, *Report of the Expert Consultation on Fishing Vessels Operating under Open Registries and Their Impact on Illegal, Unreported and Unregulated Fishing* (2003) FAO Doc FIP/R722.

²⁸⁶ David J. Agnew and Colin T. Barnes, “Chapter 11: Economic Aspects and Drivers of IUU Fishing: Building a Framework” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 169-200, 175.

Amur, flagged to Saõ Tome e Principe [another known FOC] before sinking around Kerguelen on 9 October 2000.²⁸⁷



The phenomenon known as FOC is a major contributing factor to the prevalence of IUU fishing.²⁸⁸ Furthermore with respect to fisheries management, FOC States typically do very little to enforce international obligations they have incurred in relation to flagged vessels fishing the high seas, furthermore they are usually not members of relevant RFMOs.²⁸⁹ Therefore given the large number of IUU fishing vessels flying FOC, rather than relying on RFMOs that have little jurisdiction over non-member FOC vessels, it would seem that the most effective means of eliminating the problem of IUU fishing would be to eliminate the FOC system completely for fishing vessels.²⁹⁰ But How? Because UNCLOS places the duty directly on flag states to enforce compliance, many states that rely on flagging vessels as a source of state revenue, know that

²⁸⁷ David J. Agnew and Colin T. Barnes, "Chapter 11: Economic Aspects and Drivers of IUU Fishing: Building a Framework" in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 169-200, 175.

²⁸⁸ Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, the Netherlands) pp 58.

²⁸⁹ *Ibid.*

²⁹⁰ Matthew Gianni, "IUU Fishing and the Cost to Flag of Convenience Countries" in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 285-291.

coastal states are powerless to exercise their jurisdiction over vessels.²⁹¹ It is these lacunae within the UNCLOS regime that not only propagate IUU fishing, but also protect FOCs.²⁹²

Gianni argues that that what is needed is a clear ruling from the ITLOS “designed to further strengthen the definition of flag state responsibility under international law and ultimately render the state practice of issuing flags of convenience for fishing vessels effectively illegal.”²⁹³ Although it seems that this maybe unlikely in the near future, given not only due to the robust unequivocal consensual nature of the principle of exclusive flag state jurisdiction, but also the nature of the rulings by ITLOS on the issue of ‘a genuine link between flagged vessel and flagged state.’²⁹⁴ In an ITLOS test case; the *M/V Saiga Case* (1999)²⁹⁵ – that involved the *M/V Saiga*²⁹⁶, an oil tanker supplying gas to fishing vessels off the West African coast that was arrested by Guinean authorities. In an objection to the arrest by St. Vincent (the flag state) being a breach of International law, Guinea subsequently objected, *inter alia*, to the objection on the grounds of an absence of a genuine link between the *M/V Saiga* and its flag state. The tribunal found;²⁹⁷

“The conclusion of the Tribunal is that the purpose of the provisions of the [1982 UN] Convention on the need for a genuine link between a ship and its flag state is to secure more effective implementation of the duties of the flag state, and not to establish criteria by reference to which the validity of the registration of ships in a flag state may be challenged by other states.

“There is nothing in article 94 to permit a state which discovers evidence indicating the absence of proper jurisdiction and control by a flag state over a ship to refuse to recognize the right of the ship to fly the flag of the flag state”

This case illustrates the unwillingness of ITLOS to hold inconsistently with UNCLOS. D’Andrea focuses on the robust nature of the ‘exclusive flag state jurisdiction norm by recalling Herman Meyers’ as expressed back in 1967 in *The Nationality of Ships*’ where “one might be more successful in focusing on the ultimate purpose of the genuine link principle, namely safeguarding the necessary authority of the flag state in the best possible manner”.²⁹⁸

IUU fishing activities is a significant international problem that represents a tragedy of the commons, not only because such activities are harmful to global fish stocks but also because

²⁹¹ Benjamin K Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” (2009) 40(1) ODIL 97, 110; Marcus Haward “Coordination and Capacity in Ocean Governance” (2006) Paper presented at the Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives (University of Tasmania, Hobart 28 – 29 June 2006) 3.

²⁹² Marcus Haward “Coordination and Capacity in Ocean Governance” (2006) Paper presented at the Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives (University of Tasmania, Hobart 28 – 29 June 2006) 3.

²⁹³ Matthew Gianni, “IUU Fishing and the Cost to Flag of Convenience Countries” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 285-291, 289.

²⁹⁴ UNCLOS, Article 91.

²⁹⁵ *M/V Saiga (No. 2)* (Saint Vincent and the Grenadines v. Guinea), 1999 I.T.L.O.S. (1 July 1999).

²⁹⁶ The *Saiga* was provisionally registered in Saint Vincent and the Grenadines, was owned by a Cypriot company, managed by a Scottish corporation and chartered to a Swiss firm – see Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 6.

²⁹⁷ Above at n. 295, paras 82-83.

²⁹⁸ Herman Meyers, *The Nationality of Ships* (Martinus Nijhoff, The Hague, Netherlands, 1967) in Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 6.

IUU fishing seeks to undermine the effectiveness of measures that could curtail the tragedy – measures that are adopted nationally, regionally and internationally to secure fish stocks for the future.²⁹⁹ Despite many actions that have been taken by the international policy makers, IUU fishing is still rampant. Clearly the reasons are economic and IUU fishers, when confronted with new limitations or regulations on their operations, will explore alternative ways of continuing with their fishing.³⁰⁰

The role of RFMOs and the fight against IUU fishing could be greatly enhanced, if current non-members could be encouraged to join the relevant RFMO. However as we are aware RFMOs themselves also require legislative strengthening in order to respond to ongoing concerns. UNCLOS lacks the tools to provide RFMOs with greater competence and enforcement jurisdiction required to move beyond flag state jurisdiction and actively enforce conservation and sustainable measure on the high seas against IUU vessels. Another major issue in relation to RFMO measure enforcement “is that international legal frameworks apply only to states that have acceded to various conventions.”³⁰¹ And so what of RFMO rules that must be implemented through national authorities? The RFMOs have an essential role to play in the quest to stop illegal fishing. But where RFMOs are challenged, in addition to enforcement, is regulation implementation.³⁰² There is a clear need for RFMOs to monitor the implementation of resolutions and achieved results. This will be addressed in the next chapter as we look at the development of international legislative tools designed to give RFMOs more implementative clout.

Perhaps the most important notion to keep in mind is that as long as the IUU activity is profitable (or more likely that when the expected benefits exceed the expected costs) it is not easy to stop.³⁰³ Couple this with no real ability for sanction other than flag state control – it seems that IUU Fishing will not be eliminated anytime soon.

²⁹⁹ Carl-Christian Schmidt, “Addressing Illegal, Unreported and Unregulated (IUU) Fishing” (2004) Paper prepared for the *International Fisheries Compliance 2004 Conference, 29-30 September 2004*, Brussels p 1.

³⁰⁰ *Ibid*, p 10.

³⁰¹ Isolina Boto, Camilla La Peccerella and Silvia Scalco (CTA), “Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries” [29 April 2009] *A Reader: Resources on Illegal, Unreported and Unregulated (IUU) fishing* (Briefing session n° 10. Brussels Rural Development Briefings - a series of meetings on ACP-EU development issues, Brussels) p 21.

³⁰² *Ibid*, p 22.

³⁰³ Above at n. 299, p 10.

V SUBSEQUENT INTERNATIONAL & REGIONAL INITIATIVES THAT ADDRESS IUU FISHING

Part VII of UNCLOS designates the high seas as “*open to all States, whether coastal or land-locked*” including “*freedom of fishing*,”³⁰⁴ but obliges fishing States to co-operate to conserve highly migratory and straddling fish stocks, or to observe treaties and coastal state conservation measures.³⁰⁵ Some states formed *regional and sub-regional fisheries management organisations* (RFMOs)³⁰⁶ to facilitate co-operation in conservation and manage fish stocks on the high seas. This includes the general duty to cooperate with regard to straddling stocks, highly migratory stocks, and particular species.³⁰⁷ Yet at the same time UNCLOS has (unintentionally) ‘hobbled’ those organisations that recommends states parties *cooperate to establish*,³⁰⁸ by promulgating the principle of exclusive flag state jurisdiction over flagged vessels on the high seas. And so with this principle and in the absence of an express reference to the superiority of RFMO rights over those of high seas fishing states, freedom of high seas fishing prevails.³⁰⁹

It is obvious that UNCLOS qualified the freedom of fishing on the high seas with an obligation to co-operate to conserve fishstocks, because it presumed that fishing states will implement laws to govern and control ships flying its flag, including in addition to fisheries treaties; i.e. the enforcement of generally accepted regulations, procedures and practices (eg IMO conventions and guidelines) and ILO standards for workers and seafarers.³¹⁰ However as we have established earlier in this thesis, this is not the case at all. The principle of exclusive flag state jurisdiction has among other things, lead to the reflagging of vessels with ‘flags of convenience’ to states where flag state compliance measures are relaxed. This in turn led to the proliferation of ‘open registers’ where these *flags of convenience* can be purchased. Because UNCLOS places the duty directly on flag states to enforce compliance, many states that rely on flagging vessels as a source of state revenue, know that coastal states are powerless to exercise their jurisdiction over vessels.³¹¹ It is lacunae like this within the UNCLOS regime that have helped the proliferation of IUU fishing.³¹²

³⁰⁴ United Nations Convention on Law of the Sea (10 December 1982) 1833 UNTS 396, art 87(e).

³⁰⁵ Ibid, article 63-4 & 116-119.

³⁰⁶ UNCLOS, Article 118.

³⁰⁷ UNCLOS, Articles 63, 64, 66 & 67.

³⁰⁸ Ibid, Article 118.

³⁰⁹ Dean Bialek, “Measures Under International Law for the Conservation of the Patagonian Toothfish in the Southern Ocean” (2003) 34 ODIL 105, 114.

³¹⁰ Benjamin K Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” (2009) 40(1) ODIL 97, 110; Marcus Haward “Coordination and Capacity in Ocean Governance” (2006) Paper presented at the Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives (University of Tasmania, Hobart 28 – 29 June 2006) 3.

³¹¹ Benjamin K Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” (2009) 40(1) ODIL 97, 110; Marcus Haward “Coordination and Capacity in Ocean Governance” (2006) Paper presented at the Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives (University of Tasmania, Hobart 28 – 29 June 2006) 3.

³¹² Marcus Haward “Coordination and Capacity in Ocean Governance” (2006) Paper presented at the Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives (University of Tasmania, Hobart 28 – 29 June 2006) 3.

Furthermore, since the negotiation began in the 1970s in UNCLOS III until the convention came into force in the early 1990s – the nature of fishing, as well as the fisheries management has evolved. Today’s fisheries has different problems (greater fishing and spotting technology, FADs³¹³ and supertrawlers – and in response to this the fisheries management paradigm has evolved to include more environmental principles and the promotion of transparency and accountability, texts of international fisheries instruments has even extended participation to NGOs.”³¹⁴ It therefore follows that the meagre requirements of co-operation and conservation between high seas fishing states and coastal states with regard to fishstocks laid down by UNCLOS is not enough, yet that is as far as the convention went in establishing meaningful high seas fisheries management regime.³¹⁵ When these meagre principles are added to the robust principles of free fishing and flag state jurisdiction, we have a disincentive for flag States to regulate their fishing vessels on the high seas. This disincentive is buttressed further by RFMOs and coastal states being precluded from preventing any action from being taken against those flagged vessels [who flout high seas conservation measures that are in accordance with UNCLOS] without there being any adverse consequences for the flag state concerned.³¹⁶

Goodman argues that it is imperative that states establish the criteria or elements of effective flag state responsibility – which she argues should address;³¹⁷

“Address the need for effective cooperative management of shared resources, and the effective control of fishing operations through the prevention, deterrence and elimination of IUU fishing.”

None of these requirements are covered, or even hinted at in UNCLOS - “which does not incorporate detailed requirements for the management of high seas fisheries, or the conduct of fishing on the high seas.”³¹⁸ Haward argues that it is the above problems coupled with problems in managing Straddling Stocks in the early 1990s (particularly the Cod Fisheries off the Canadian Atlantic Grand Banks), and perceptions of over-fishing or even ‘illegal’ fishing by DWFNs prompted many states (like Canada) to convene a number of meetings even before the

³¹³ See Wesley A. Armstrong and Charles W. Oliver, “Recent use of Fish Aggregation Devices in the Eastern Tropical Pacific Tuna Purse-Seine Fishery 1990-1994” (March 1996) *Administrative Report LJ-95-14*, Southwest Fisheries Science Centre, NOAA Fisheries Service, p4-5 – FADs are Fish Aggregation devices – which are floating objects that are specifically designed and located to attract pelagic fishes such as marlin, tuna, mahimahi. These FADs allow fishers to find them more easily. No one understands exactly why tunas are attracted to FADs, but the ropes, floats and the other materials used presumably mimic the build-up of driftwood and seaweed found naturally in the sea.

³¹⁴ Pio E. Manoa, “Partners or Adversaries? The Role of NGOs in the Implementation of International Fisheries Instruments” in Q. Hanich & M. Tsamenyi (eds), *Navigating Pacific Fisheries: Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region* (2009, Ancors, University of Wollongong, Australia) Chapter 7 pp 163-183, 163.

³¹⁵ Camille Goodman, “The Regime for Flag State Responsibility in International Fisheries law: Effective Fact, Creative Fiction, or Further Work Required?” (2009) *A&NZ Maritime Law Journal* 23: 157-169, 162 at n. 46 – “The responsibility to cooperate is actually expressed to apply to States with respect to their ‘nationals’, rather than specifically in their role as ‘flag States’, although the outcome will in most cases be the same. Specific additional obligations for States regarding the control of nationals, who own, operate or crew vessels flagged to third States are becoming increasingly common in the fisheries sector.”

³¹⁶ David Balton, “Dealing with the “Bad Actors” of Ocean Fisheries” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 57-64.

³¹⁷ Camille Goodman, “The Regime for Flag State Responsibility in International Fisheries law: Effective Fact, Creative Fiction, or Further Work Required?” (2009) *A&NZ Maritime Law Journal* 23: 157-169, 162.

³¹⁸ *Ibid.*

commencement of the UNCED (properly known as the Earth Summit).³¹⁹ For instance, in May 1992 an International Conference on Responsible Fishing was held at Cancun, Mexico and there the Cancun declaration was adopted which called on the FAO to draft an International Code of Conduct on Responsible fishing.³²⁰ The UNCED met in June 1992, at Rio and here they adopted the Rio Declaration or Agenda 21. Chapter 17 of the declaration deals with the Earth's Oceans and "Sustainable Use and Conservation of Marine Living Resources of the High Seas."³²¹ It is arguable that it is this declaration that really got the ball rolling in the context of ensuring sustainable management of the high seas fisheries. Accordingly the FAO took the initiative to fill the holes in the UNCLOS duties to conserve and co-operate and 'responded to Cancun declaration after a conference of their own in 1992'³²², with two instruments:

- ✗ 1993 *FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*. (Rome, 24 November 1993) ("Compliance Agreement")
- ✗ 1995 *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea, 10 December 1982 Relating to the Conservation and management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, (Dec 4, 1995) ("UNFSA or Fish Stocks Agreement")

Both the Compliance Agreement and the UN Fish Stock Agreement are legally binding international instruments,³²³ and both instruments have developed an international governance framework for high seas fishing that gives effect to the duty to cooperate through a system of RFMOs³²⁴ and at the same time they establish the criteria or elements of effective flag state responsibility for ensuring compliance with the international fishery conservation and management measures adopted by RFMOs.³²⁵ Simply put, these two new agreements add meat to UNCLOS's bones in the context of high Seas fisheries management in that they "*enunciate a range of flag State duties that give specific practical effect to the obligation to ensure effective jurisdiction and control in relation to the activities of fishing vessels.*"³²⁶ In the very least these two agreements compliment UNCLOS, but some commentators like Goodman even go as far as to say together – the two agreements are implementing agreements.

Also in subsequent years in response to IUU fishing and FOCs two soft law instruments have also entered into force;

³¹⁹ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 37; also see R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999) p 302.

³²⁰ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999) p 302.

³²¹ *Ibid.*

³²² *Ibid.*, 303.

³²³ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005. ISBN- 9264010874) p 30.

³²⁴ Michael Lodge, *Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations* [2007] (Chatham House, London, March 2007. Energy, Environment and Development Programme - EEDP BP 07/01).

³²⁵ Carl-Christian Schmidt, "Addressing Illegal, Unreported and Unregulated (IUU) Fishing" (2004) Paper prepared for the *International Fisheries Compliance 2004 Conference*, Brussels. 29-30 September 2004, p 6.

³²⁶ *Ibid.*

- ✗ 1995 *Code of Conduct for Responsible Fisheries*, Food and Agriculture Organisation of the United Nations. Rome, 1995. (“Code of Conduct”)
- ✗ 2001 *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*. FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001. (“IPOA-IUU”)

The Code of Conduct and the IPOA-IUU are voluntary and management-oriented in nature and are “formulated to be interpreted and applied in conformity with the relevant rules of international law.”³²⁷ Although each agreement is different, each one has the common purpose of facilitating meaningful sustainable high seas fisheries management. And although many commentators acknowledge the piecemeal nature of the sustainable management ‘regime’, it can also be argued that the difference in nature and scope of each agreement makes them essentially complementary in achieving their objective toward sustainable and responsible fisheries.³²⁸

A HARD LAW INSTRUMENTS

(i) The 1993 FAO Compliance Agreement

The Compliance agreement seeks to ensure that there is effective flag-state control over fishing vessels operating on the high seas. It was created to deter the practice of reflagging to FOCs in order to circumvent RFMO conservation and sustainable fishing measures.³²⁹ The Agreement creates a set of basic obligations requiring flag States to control the activities of their vessels on the high seas, including by requiring an authorization for high seas fishing (which must only be issued where the flag State is able to effectively control the fishing operations of the vessel),³³⁰ and by ensuring that vessels do not undermine the effectiveness of international conservation and management measures.³³¹ With respect to reflagging to FOCs – the Compliance agreement has trickily eliminated the problem of a ‘genuine link’ by introducing the requirement of an *authorization to fish* on the high seas.³³² Article III(3) provides that, no such authorization shall be granted;

“unless the Party [to the Agreement] is satisfied that it is able, taking into account the links that exist between it and the fishing vessel concerned, to exercise effectively its responsibilities under this Agreement in respect of that fishing vessel”.

Article III(3) thus imposes a condition that fulfils the same objective as genuine link – the authorization to fish “expresses the intent of the flag state to exercise control over fishing vessels

³²⁷ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005. ISBN- 9264010874) p 29.

³²⁸ *Ibid* p 30.

³²⁹ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 40.

³³⁰ Compliance Agreement, Article III(2) and (3).

³³¹ *Ibid*, Article III(1)(a).

³³² Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006).

entitled to fly its flag”.³³³ D’Andrea also argues that the *authorization to fish on the high seas* raises awareness of flag state responsibility.³³⁴ Furthermore the Compliance Agreement seeks to maximise information flow about high seas fishing activities, the lack of which has been an obstacle to effective fishing management in the past.³³⁵ In order to achieve this, the Agreement provides that the flag State must maintain records of registered vessels that were granted an authorization to fish on the high seas and communicate to FAO information on the vessel, its owner and manager, the fishing method, the gross registered tonnage, and other relevant data about its vessels authorised to fish on the High Seas.³³⁶ Furthermore the Compliance Agreement allows a port State ‘to promptly notify the flag state’ if it has ‘reasonable grounds for believing that a fishing vessel has been used for an activity that undermines the effectiveness of international conservation and management measures.’³³⁷

However, even though this agreement is legally binding on its signees, the effectiveness of the Agreement still comes down to the goodwill of flag states. The agreement itself provides for no sanction of a flag state in the case of non-compliance nor arguably does it have the jurisdiction to ever do so.³³⁸

(ii) The 1995 United Nations Fish Stocks Agreement (UNFSA)³³⁹

The UNFSA complements the Compliance Agreement and the voluntary 1995 FAO Code of Conduct for Responsible Fisheries. However Gavouneli claims that the UNFSA is a much more effective tool for the management of high Seas fisheries – (yet at the same time she acknowledges that this effectiveness is also its weakness). She writes;³⁴⁰

“... The 1995 Agreement is neither an implementation agreement to the LOS Convention nor an amendment thereof in spite of the mandate given to the diplomatic conference that created it and the result being celebrated as a carefully crafted compromise – it simply goes beyond the confines of the LOS Convention and creates another legal universe, naturally binding only upon those States party to it. Indeed, it is explicitly so stated in [the Agreement].”

The influence of the Compliance Agreement is recognisable in many of the provisions of the UNFSA: ensuring vessels’ comply with conservation and management measures; the granting of *authorisations to fish on the high seas* conditional on the state’s ability to effectively exercise its responsibilities in respect of the fishing vessel; and the maintenance of a national record of

³³³ J. Fitzpatrick, “Measures to Enhance the Capability of a Flag State to Exercise Effective Control over a Fishing Vessel” in *Report of and Papers Presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing*, (Sydney, Australia, 15-19 May 2000, FAO Fisheries Report No. 666 (2001)).

³³⁴ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006).

³³⁵ R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999) p 303.

³³⁶ *Ibid*, 304.

³³⁷ Compliance Agreement, Article V(2).

³³⁸ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) pp 9 -10.

³³⁹ *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea 10 December 1982 Relating to the Conservation and management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, Dec 4, 1995, A/CONF.164/37, 8 September 1995, 34 ILM 1542; Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 683 at n68: The UNFSA entered into force in December 2001, having secured 30 reservations. By 2010 seventy-seven states and other entities (including the E.U.) have become party to it.

³⁴⁰ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 120.

fishing vessels.³⁴¹ The UNFSA is technical and focused on procedures, stakeholder involvement, transparency, the use of science and the application of the precautionary approach. Articles 9 and 10 of the Agreement outline the scope and functions of RFMOs including the management functions of collecting and assessing scientific information, and establishing and enforcing regulatory measures.³⁴² The UNFSA provides RFMOs with a number of key functions including the development of *participatory rights* that include ‘allocation of allowable catches or levels of fishing effort.’³⁴³ Even though as we have established above, vary considerably in practise, and have become a contentious issue. Also with respect to RFMOs, in a manner more obligatory than UNCLOS the UNFSA provides that in regard to Highly Migratory fishstocks, state co-operation is mandatory, and for straddling stocks the co-operation is desirable.³⁴⁴

Where the UNFSA breaks new ground are in its compliance and enforcement measures. For example, article 18 of the Agreement provides strengthened flag state duties;³⁴⁵

- “1. *A State whose vessels fish on the high seas shall take such measures as may be necessary to ensure that vessels flying its flag comply with subregional and regional conservation and management measures and that such vessels do not engage in any activity which undermines the effectiveness of such measures.*
2. *A State shall authorize the use of vessels flying its flag for fishing on the high seas only where it is able to exercise effectively its responsibilities in respect of such vessels under the Convention and this Agreement*
3. *Measures to be taken by a State in respect of vessels flying its flag shall include:*
 - (a) *control of such vessels on the high seas by means of fishing licences, authorizations or permits, in accordance with any applicable procedures agreed at the subregional, regional or global level;*
 - (b) *establishment of regulations:...*”

Furthermore, the compliance and enforcement provisions with the UNFSA³⁴⁶ provide that states will ensure their flagged vessels will comply with regional and sub-regional measures and that states shall enforce such measures irrespective of where violations occur.³⁴⁷ Furthermore it provides that any such breaches by a flagged vessel shall be investigated and it shall ‘require its vessels to give information to the investigating authority regarding vessel position, catches, fishing gear, fishing operations and related activities in the area of alleged violation.’³⁴⁸ These enforcement measures concern investigation, legal proceedings, suspension of authorization until compliance is secured and types of sanctions that should be inflicted to non-complying vessels.³⁴⁹ However as in UNCLOS, the compliance and enforcement provisions of UNFSA require flag states to take the enforcement measures against their non-complying vessels,

³⁴¹ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) pp 9 -10.

³⁴² Are Sydnes, “Regional Fisheries Organisations and International Fisheries Governance” in Syma A. Ebbin, Alf Håkon Hoel and Are K. Sydnes (eds) *A Sea Change: The Exclusive Economic Zone and Governance Institutions for Living Marine Resources* (Springer, Dordrecht, the Netherlands, 2005). Chapter 8, pp 117–135, 122.

³⁴³ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 38.

³⁴⁴ UNFSA, Article 7(1); also see Elli Louka, *International Environmental Law: Fairness, Effectiveness, and World Order* (Cambridge University Press, New York, 2006) p 259.

³⁴⁵ UNFSA, Article 18.

³⁴⁶ UNFSA, Articles 19, 20, 21 and 23.

³⁴⁷ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 37.

³⁴⁸ *Ibid*, p 37.

³⁴⁹ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 10.

regardless of the location of violations. So again as far as enforcement goes, the UNFSA has not gone beyond the normative framework formalised in UNCLOS.

The crux of UNFSA lies in paragraph 4 of article 8,³⁵⁰

“Only those States which are members of such an organisation or participants in such an arrangement, or which agrees to apply the conservation and management measures established by such organisation or arrangement, shall have access to fishery resources to which those measures apply.”

Here the traditional Grotius freedom of free fishing on the high seas becomes a qualified freedom, conditional on compliance with RFMO *conservation and management measures*, and it therefore follows that non-members of RFMOs should not fish those waters. This is an ambitious provision – but it raises an important question, whether non-members (third states) are bound by such a provision? Perhaps it might be safe to assume that implementing measures that affect third states, and expect those states to be bound by them, is as Gavouneli remarks, “is unsustainable in International Relations.”³⁵¹

Third States can argue that the UNFSA for example constitutes a furtherance of the principles promulgated in UNCLOS, namely the somewhat recent principle of co-operation which establishes a duty on all states to;³⁵²

“... Cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.”

And;³⁵³

“States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas [...They] 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 sub-regional or regional fisheries organizations to this end.”

A principle that qualifies the right to freely fish the high seas – but a principle that is also subject to the freedom of fishing on the high Seas nonetheless. Furthermore what of States who are not party to the binding UNFSA – but are parties to LOSC? Well according to Gavouneli, those states continue to exercise ‘only flag state jurisdiction upon their vessels fishing the high seas.’³⁵⁴

Furthermore, however ambitious the above instruments – it must be highlighted that they are formal Instruments of Agreement (or Treaties). With respect to treaties there is a principle of customary [Roman] International Law; *pacta tertiis nec nocent nec prosunt*,³⁵⁵ which is based on the doctrine of sovereign equality amongst all states (that all states are equally sovereign).³⁵⁶ This

³⁵⁰ UNFSA, Article 8(4).

³⁵¹ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 119.

³⁵² UNCLOS, Articles 117.

³⁵³ UNCLOS, Articles 118.

³⁵⁴ Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007) p 121.

³⁵⁵ Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 182.

³⁵⁶ *Ibid.*

principle has subsequently been codified³⁵⁷ and has been described as a general rule ‘*so well established that there is no need to cite extensive authority for it*’.³⁵⁸

According to Rachel Baird,³⁵⁹

“The operation of the *pacta tertiis* rule also exposes a weakness in international law. States may choose not to accept an obligation undertaken by a majority of states, sometimes benefiting from their noncompliance, as well as undermining attempts by the international community to regulate state practice.”

Or in simpler terms as Evans sees them;³⁶⁰

“States [choose] to fetter themselves, [while] many remain reluctant to do so whilst others remain free to take advantage of their self-restraint.”

In terms of fisheries management on the high seas efforts by interested states and RFMOs at meaningful sustainable fishstocks management can be completely undermined by non-compliant third states, states the place reservations and thereby “to avoid compliance with selected measures” (which according to Baird is a feature of many regional fisheries conventions³⁶¹) or even worse states who sign up, and repudiate their obligations.

In the context of deterring and or eliminating IUU fishing, the adoption of more robust strategies and measures that would serve to effectively tackle the problem of IUU fishing would have to be consented to by the very states that engage in IUU fishing.³⁶² And what of FOCs? Again they would have to consent to sanctions that could otherwise be imposed by the international community.

However the UNFSA does offer something that is too often overlooked by many commentators and that is the articulation of the *precautionary approach* which is in my opinion a normative breakthrough. Louka like many commentators emphasises the scientific evidence component of the UNFSA and dismisses the *precautionary approach* as the “weaker version of the precautionary principle.”³⁶³ However Sydnes sees it in a more positive light, and sees the UNFSA as reflecting the “development of environmental principles in international co-operation, in that [when weighing up scientific evidence] states are to apply a precautionary approach and protect biodiversity when adopting regulatory measures.”³⁶⁴ In this way the UNFSA is pro-active, rather

³⁵⁷ Vienna Convention on the Law of Treaties, 23 May 1969, 1155 UNTS 331, Article 34 “**General rule regarding third States** - A treaty does not create either obligations or rights for a third State without its consent.”

³⁵⁸ Robert Jennings and Arthur Watts (eds), *Oppenheim’s International Law* (9th ed, 1992) 1260–1 cited in Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299-335, 318 at n 99.

³⁵⁹ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299-335, 318.

³⁶⁰ Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 683.

³⁶¹ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299-335, 318.

³⁶² *Ibid*, 19 – “Flag state consent is also required for the effective implementation of the Catch Documentation Scheme (‘CDS’) and the Vessel Monitoring System (‘VMS’) — both of which have been adopted by RFMOs like CCAMLR.”

³⁶³ Elli Louka, *International Environmental Law: Fairness, Effectiveness, and World Order* (Cambridge University Press, New York, 2006) p 259.

³⁶⁴ Are Sydnes, “Regional Fisheries Organisations and International Fisheries Governance” in Syma A. Ebbin, Alf Håkon Hoel and Are K. Sydnes (eds) *A Sea Change: The Exclusive Economic Zone and Governance Institutions for Living Marine Resources* (Springer, Dordrecht, the Netherlands, 2005). Chapter 8, pp 117–135, 124.

than reactive, as it would be if it just relied on scientific evidence. In addition to the introduction of normative environmental principles to High Seas fisheries management, the UNFSA also introduces port state measures, and regulates boarding and inspection on the high seas by members of RFMOs or parties to the Agreement, to other members of the same RFMO or other parties to the Agreement.³⁶⁵

The UNFSA is a substantial improvement on the meagre UNCLOS high seas fisheries management provisions and in some aspects reflects some normative breakthroughs, but again it is still subject to the historic high seas Grotius norms that were formalised in UNCLOS. So even though it is apparent to many commentators that as far as the UNFSA has built on the vague LOSC provisions around conservation and sustainable high seas fishstock management, by advocating institutional requirements for RFMOs that emphasize the use of science and the precautionary approach to the setting of TACs, the UNFSA lacks a “*mechanism by which RFMOs (and States) can be held accountable for failure to comply with the norms and principles of LOSC and UNFSA.*”³⁶⁶

B SOFT LAW INSTRUMENTS

(i) The 1995 Code of Conduct for Responsible Fisheries

The FAO Code of Conduct was developed in response to increasing international concern for over-fishing and the need for action to halt the overfishing of global fish stocks. The problem of IUU fishing on the high seas, and the practice of re-flagging of vessels with FOCs or the registering vessels to open registries are contributory factors to the sad state of High Seas fishery resources.³⁶⁷ The objective of the FAO Code of Conduct is to provide guidance to States to create or improve the legal and institutional framework for fisheries management in order to achieve responsible fisheries.³⁶⁸ As well as fisheries management regulations, enforcement measures are implemented under the Code.³⁶⁹ The Code of Conduct is aimed at addressing flag state *irresponsibility*. This is clearly visible from the mood of the instrument. Article 7 for example attempts to indirectly address the FOC issue by providing that states should;³⁷⁰

“Encourage financial institutions not to require, as a condition of loans or mortgages, that vessels be registered in a state other than that of beneficial ownership, where such a requirement would increase the likelihood of non-compliance.”

Even though the Code of Conduct is a voluntary instrument, it is still an important instrument for it aids in creating a new normative framework for the high seas fisheries management, by establishes principles and standards of behaviour applicable to the conservation, management

³⁶⁵ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 10.

³⁶⁶ Kristina M Gjerde “High Seas Fisheries Management under the Convention on the Law of the Sea” in David Freestone et al (ed) *The Law of the Sea* (Oxford University Press, Oxford, 2006) 281-307, 298.

³⁶⁷ Dikdik Sodik, “Non-Legally Binding International Fisheries Instruments and Measures to Combat Illegal, Unreported and Unregulated Fishing” (2008) *Australian International Law Journal* 15; 129-163, 142.

³⁶⁸ *Ibid*, 146.

³⁶⁹ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 11.

³⁷⁰ Code of Conduct, Article 7; see also Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 11.

and development of all fisheries.³⁷¹ What is significant about the Code of Conduct, because it is not a binding convention on states, but a code – its provisions are directed not only at States but also at industry, non-governmental organisations and other stakeholders, emphasising the need for ‘all stakeholders in marine fisheries to adopt a broader approach to conservation and management of fisheries.’³⁷² Like the UNFSA, the Code of conduct also emphasises the precautionary approach;³⁷³

“Where states are required to protect and preserve the marine environment by taking into account the best scientific evidence available. States must adopt a precautionary approach and must not use the absence of adequate scientific information as a reason to postpone or fail to take measures to conserve target species and associated or dependent species.”

The Code of Conduct, even more so than the UNFSA is definitely management first – and addresses broader long-term fishery management issues, and requires states to adopt measures that can be implemented through the adoption of appropriate policy, legal, and institutional frameworks - mechanisms like MCS, or reductions in excess fishing capacity.³⁷⁴ Yet again the Code of Conduct might be normatively ambitious and framework building, but it suffers from the same weakness as the other hard law instruments – in that it relies on flag state and stakeholder good will. Furthermore it is not legally binding on any of the signees. It is a code – and by implication is only morally binding.

(ii) The 2001 International Plan of Action for IUU Fishing (IPOA- IUU)

Almost every commentator argues that “given the diversity of the phenomenon we call IUU fishing and the multiple problems it causes, we must take a multi-tiered approach to combating it.”³⁷⁵ The IPOA-IUU attacks IUU fishing with such an approach. The IPOA-IUU was developed from an initial expert consultation in May 2000 and two sessions of technical consultation.³⁷⁶ The second technical consultation on IUU fishing was held in Rome in February 2000, and a week later in March the IPOA was approved by COFI, who urged all its members “to take the necessary steps to effectively implement” the plan of action.³⁷⁷

The IPOA-IUU is not a formal agreement; instead it is more a “toolkit” – complete with a set of tools for use in combating IUU operations on different levels.³⁷⁸ In this way the IPOA-IUU is

³⁷¹ Dikdik Sodik, “Non-Legally Binding International Fisheries Instruments and Measures to Combat Illegal, Unreported and Unregulated Fishing” (2008) *Australian International Law Journal* 15; 129-163, 142.

³⁷² *Ibid.*

³⁷³ Code of Conduct, Article 6(5).

³⁷⁴ *Ibid.*, Article 7(1).

³⁷⁵ David A. Balton, “Chapter 2: Global Review of Illegal, Unreported and Unregulated Fishing Issues: What's the Problem?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 49-50; 50.

³⁷⁶ Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008) p 42.

³⁷⁷ *Ibid.*

³⁷⁸ David A. Balton, “Chapter 2: Global Review of Illegal, Unreported and Unregulated Fishing Issues: What's the Problem?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 49-50; 50.

an ambitious undertaking by the international community, but ultimately it is a plan of action and is thus non-binding in nature, and so relies on states parties to implement its measures.

The purpose of the IPOA-IUU is of course to prevent, deter and eliminate IUU fishing by providing countries with a set of comprehensive, effective and transparent measures on the basis of which they may act either directly or through the relevant RFMOs.³⁷⁹ The IPOA-IUU fishing incorporates the following principles and strategies;³⁸⁰

“Due consideration should be given to the special requirements of developing countries in accordance with Article 5 of the Code of Conduct: 9.1 Participation and coordination: To be fully effective, the IPOA should be implemented by all States either directly, in cooperation with other States, or indirectly through relevant regional fisheries management organizations or through FAO and other appropriate international organizations. An important element in successful implementation will be close and effective coordination and consultation, and the sharing of information to reduce the incidence of IUU fishing, among States and relevant regional and global organizations. The full participation of stakeholders in combating IUU fishing, including industry, fishing communities, and non-governmental organizations, should be encouraged.”

The IPOA-IUU is unique (like the Code of Conduct) in that it addresses the issue of international cooperation and the role of RFMOs in fisheries management, by promoting action by states at regional level.³⁸¹ Furthermore States that are not members of a relevant RFMO are still nonetheless under an obligation to cooperate in addressing IUU fishing, and are furthermore encouraged to become members of relevant RFMOs.³⁸²

Although much of the substantive provisions of the IPOA-IUU are repetitive of what is found in the other instruments like the Code of Conduct, the Compliance Agreement and the UNFSA – its major attribute is that not only has it included many different aspects of each agreement into one plan of action, it has provided the international community with renewed a impetus for tackling the problem of high seas IUU operations.³⁸³ Also the IPOA-IUU has re-emphasized and elaborated on some provisions that may have lacked impact or clarity in the other instruments. For example, the duties of flag states are elaborated in great detail and with explicit wording, making provisions on vessels registration, record of fishing vessels and authorization to fish. Paragraph 39, for instance, reads;³⁸⁴

“States should take all practicable steps, including denial to a vessel of an authorization to fish and the entitlement to fly that state’s flag, to prevent “flag hopping”; that is to say, the practice of repeated and rapid changes of a vessel’s flag for the purposes of circumventing conservation and management measures or provisions adopted at a national, regional or global level or of facilitating non-compliance with such measures or provisions”.

³⁷⁹ Carl-Christian Schmidt, “Addressing Illegal, Unreported and Unregulated (IUU) Fishing” (2004) Paper prepared for the *International Fisheries Compliance 2004 Conference*, Brussels. 29-30 September 2004, p 6.

³⁸⁰ *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*. FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001. Article 9. Chapter 3, p4.

³⁸¹ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) p 12.

³⁸² *Ibid.*

³⁸³ W. Edeson, “The International Plan of Action on Illegal, Unreported and Unregulated Fishing: The Legal Context of a Non-legally binding Instrument” [2001] *International Journal of Marine and Coastal law*, 16(4): 603–623, 622.

³⁸⁴ *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*. FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001. Article 39.

The IPOA despite being merely a voluntary instrument provides international support for various types of action against fishing by flags of convenience vessels by focusing on the elaboration of national plans of action on measures that address the economic drivers of IUU fishing, including coastal State measures, port State measures, and market related measures.³⁸⁵ Another provision of interest is paragraph 42 of the IPOA which requires states to collect information on beneficial ownership of a high seas fishing vessel, obviously aids actors in conducting MCS of high seas fishing vessels. Furthermore, the Plan of Action makes large use of coastal and port states measures in the combat against IUU fishing, and puts forth the role of RFMOs in international fisheries management.³⁸⁶ The IPOA recommends the legislating against the practice of IUU fishing at domestic level, it recommends imposing trade-related measures such as import bans on operators known to engage in IUU fishing. The IPOA also recommends the adoption of Port State Measures like CDS, VMS in order to eliminate the risk of trading in IUU fish.

The IPOA represents a powerful weapon in the fight against IUU fishing, as it not only includes international institutions, including the OECD, also clearly have a role to play in the fight against IUU fishing, to develop new tools,³⁸⁷ it relies on the enforcement jurisdiction of port states and according domestic legislation, and working on the premise that even IUU fish eventually has to be landed.³⁸⁸

The IPOA-IUU may be the first major initiative aimed solely at deterring and illuminating IUU fishing, but it is by no means the only one. Following the co-operative success of the IPOA-IUU, governments have increasingly acknowledged the necessity to curb the practice of IUU fishing ‘economically, environmentally and socially’ and the IPOA-IUU’s initiative has been “echoed and reinforced in various international for a; which include the 2002 World Summit on Sustainable Development (the WSSD, where governments called for the control of IUU by 2004,³⁸⁹ the 2003 G8 (the Action Plan of which urged for the elimination of IUU fishing) and the UN General Assembly.”³⁹⁰ Yet the international community has not stopped here. The OECD Committee for Fisheries after completing a 3-year study into the drivers and economic dimensions of IUU fishing, in search of alternative solutions to the problem of IUU fishing.³⁹¹

³⁸⁵ Carl-Christian Schmidt, “Addressing Illegal, Unreported and Unregulated (IUU) Fishing” (2004) Paper prepared for the *International Fisheries Compliance 2004 Conference*, Brussels. 29-30 September 2004, p 6.

³⁸⁶ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) p 11.

³⁸⁷ David A. Balton, “Chapter 2: Global Review of Illegal, Unreported and Unregulated Fishing Issues: What’s the Problem?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 49-50; 50.

³⁸⁸ Above at n. 385, p 6.

³⁸⁹ See paragraphs 30(d) and 30(f) of the World Summit on Sustainable Development Plan of Implementation at http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.htm

³⁹⁰ Bertrand Le Gallic & Anthony Cox, “An Economic Analysis of Illegal, Unreported and Unregulated (IUU) fishing: Key Drivers and Possible Solutions” [2006] *Marine Policy* 30: 689–695, 689.

³⁹¹ See OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004); OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France. 2005). Also see OECD, *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop* (OECD Publishing, Paris, France. 2007); OECD, *Reducing Fishing Capacity: Best Practices for Decommissioning Schemes* (OECD Publishing, Paris, France. 2009).

C TRADE & PORT STATE MEASURES TO COMBAT IUU FISHING

Up until now interested states have been building a high seas fisheries regime; that is largely legal; a piecemeal set of international legal instruments and rules that have been promulgated in response to the tragedy of the commons occurring on the high seas as IUU fishing – and yet the problem remains in full force and capacity. This thesis has established that the criteria of responsible flag state enforcement of RFMO measures is an international political problem just as much as it is an international legal problem. And what of the combating of open registries and FOCs? As of yet, no international instrument declares FOCs illegal, making this central problem to high seas fisheries management a political one. Furthermore the market that supports IUU fishing is undoubtedly a political-economic problem. Many commentators have urged that ‘IUU fishing pays’ and removing the economic incentives would have a considerable positive effect on the practice. So if the problem of IUU fishing is not wholly a legal one, why has the solution so far been almost wholly legal in approach? It would seem that since the problem is underpinned by political, social and economic factors, as well as legal or normative factors, it follows that any solution should also be politically-economic and internationally political in scope as well as normative.

Although RFMOs are largely powerless to enforce fisheries management measures on the high seas due to the principle of exclusive flag state jurisdiction, they still have one jurisdictional weapon available to them – the prescriptive and enforcement jurisdiction of coastal and port states. RFMOs can regulate IUU fishing on the High Seas through the use of trade measures and port state measures (PSM) on landed fish at their ports of their members. Even though IUU fishing comes down to a combination of factors that are political, economic and social as well as legal – RFMOs still require the comfort of competence to prescribe measures against non-member flagged states in member Ports with reference to landed IUU fish, and have the jurisdiction to effectively enforce those Port State Measures (PSM) against those flagged states via member states through their ports. They are able to do this on the premise that “the port State retains fully its sovereign right to set conditions for or even deny access to their ports.”³⁹² It is on this basis that UNFSA accorded port states the right and duty to take measures to promote enforcement of regional and global conservation and management measures.³⁹³ And with this competence it is no surprise that RFMOs have been changing tack and applying neo-liberal discourse to regulate high seas fishing practise in their member’s ports.³⁹⁴

Ben Sovacool looks at the use of what he terms “input/output controls and restrictions in fisheries management”, and focuses on controls commonly used by international actors to help manage fish stocks; competitive TAC limits, fishing restriction and prohibition zones, and VMS.³⁹⁵ He argues that on their own input/output controls and supply-side measures emphasise

³⁹² UNCLOS, art., 219.

³⁹³ UNFSA, Article 23; Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) pp 13-14.

³⁹⁴ Becky Mansfield, “Rules of Privatization: Contradictions in Neoliberal Regulation of North Pacific Fisheries” (2004) *Annals of the Association of American Geographers*, 94(3): 565–584; U.R. Sumaila, J. Alder & H. Keith, “Global Scope and the Economics Illegal Fishing” [2006] *Marine Policy* 30; 696–703.

³⁹⁵ Benjamin Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” [2009] *Ocean Development & International Law*, 40: 97-125, p 98.

the problems of “political compromise in program design, the problems of enforcement and compliance, the incentives to fish unsustainably, and lack of standardization and information sharing.”³⁹⁶ However Sovacool proposes a more holistic approach that combines more traditional input/output controls and supply-side measures with “demand-side or market based measures” would better serve to “to prevent and deter global overfishing.”³⁹⁷ Some of these measures among others could include the elimination of fishing subsidies, the bolstering of import restrictions, ceasing trade in endangered and threatened fish stocks, strengthening civil and criminal penalties against illegal fishers, and pursuit of punitive trade sanctions against flag states flouting international fishery guidelines.³⁹⁸

Trade-related and Port State measures are designed to act as a dis-incentive to engage in IUU fishing by attacking the profitability of IUU fishing and establishing import and export controls or prohibitions.³⁹⁹ Trade related measures in order to be effective work in tandem with port State measures. According to Lack, in the Traffic Report on Trade Related Measures, these measures reduce IUU fishing by;⁴⁰⁰

- ✗ *precluding or impeding access to markets for IUU product, thereby reducing profitability and, ultimately, the economic incentive for IUU fishing;*
- ✗ *tracing the movements of fish products in order to identify those involved in catching, transshipping and marketing illegally caught product as a basis for imposing sanctions on those participants;*
- ✗ *monitoring changes in the pattern of trade to identify flag, port and market States that can contribute to the effective implementation of conservation and management measures;*

According to the same report the trade-related measures used to achieve these objectives include:

- ✗ *schemes that require documentation to accompany product in order to authenticate its legitimacy (catch and/or trade documentation schemes);*
- ✗ *schemes that rely on vessel lists that identify authorized vessels ('white lists') and/or vessels considered or determined to have been fishing in breach of RFMO measures ('black lists') as a basis for imposing restrictions on the access of these latter vessels to ports through the introduction of port State measures;*
- ✗ *Trade bans on particular States/entities considered to have failed to co-operate in the implementation of an RFMO's conservation and management measures.*

RFMOs have been using several types of port state measures for some time with success including MCS, vessel listings, observer participation, vessel monitoring systems (VMS) and trade restrictions and catch documentation schemes (CDS).⁴⁰¹

One example of a measure that has shown some success is the establishment of catch and trade documentation scheme (**CDS**). Although these schemes have different names and modalities,

³⁹⁶ Benjamin Sovacool, “A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management” [2009] *Ocean Development & International Law*, 40: 97-125, p 98.

³⁹⁷ *Ibid.*

³⁹⁸ *Ibid.*

³⁹⁹ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006) p 13.

⁴⁰⁰ M. Lack, “Catching On? Trade-related Measures as a Fisheries Management Tool” [2007] *TRAFFIC International*, Cambridge, UK. p 1 <http://www.traffic.org/content/850.pdf>.

⁴⁰¹ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005) p 31-32. A comprehensive description of the measures of various RFMO’s can be found in FAO’s Technical Guidelines to the IPOA on IUU.

they all seek to promote ways of keeping track of “legal” catches.⁴⁰² A successful CDS is that which was instituted by CCAMLR in 1999, which was implemented in May 2001.⁴⁰³ Since the IPOA-IUU Other RFMOs have subsequently implemented CDS.⁴⁰⁴ Some of the success of the CCAMLR CDS is attributed to its methodology; once a fish is caught and brought aboard a vessel it is subject to the CDS,⁴⁰⁵ rather than just targeting the trade of particular species of fish.⁴⁰⁶

The CCAMLR CDS, which includes a mandatory Vessel Monitoring system, is binding on all its members.⁴⁰⁷

The CDS has two main objectives;⁴⁰⁸

- (i) To track the landings of and the trade in Patagonian Toothfish caught within and adjacent to the Convention area; and
- (ii) To restrict access to international markets for Toothfish from IUU fishing in the Convention area.

It also determines whether toothfish (the species that is primarily the target of IUU operations in CCAMLR waters) were caught in a manner consistent with CCAMLR conservation measures.⁴⁰⁹ The CDS requires every vessel to have catch documents accompany every ‘landing, transshipment and importation’ of toothfish into the territories of contracting parties.⁴¹⁰ CCAMLR has also managed to widen its circle of Ports by getting some non-member states to implement the CDS.⁴¹¹ The catch documents that accompany the catch contain information relating to the volume and location of catch, and the name and flag State of the vessel.”⁴¹² The CCSBT CDS in addition to a complicated array of documents⁴¹³ and require every whole fish to

⁴⁰² OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005. ISBN- 9264010874) p 31-32.

⁴⁰³ Convention for the Conservation of Antarctic Marine Living Resources (“CCAMLR”) (20 May 1980) 19 ILM 841, art 7; CCAMLR Conservation Measure 170/VXIII.

⁴⁰⁴ Commission for the Conservation of Southern Bluefin Tuna (“CCSBT”) “Resolution on the Implementation of a CCSBT Catch Documentation Scheme (modified 19 October 2009) <http://www.ccsbt.org/docs/pdf/about_the_commission/Resolution_CDS.pdf> (accessed 27/01/2011); ICCAT Bluefin Tuna Catch Documentation Scheme <<http://iccat.int/en/BCD.htm>> (accessed 27/01/2011).

⁴⁰⁵ Rachel Baird, “CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries” (2005) 36 VUWLR 733, 743.

⁴⁰⁶ *Ibid.*

⁴⁰⁷ OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), 134.

⁴⁰⁸ Above at n. 405, p 744.

⁴⁰⁹ Above at n. 407.

⁴¹⁰ *Ibid.*

⁴¹¹ Above at n. 408.

⁴¹² Above at n. 407.

⁴¹³ Commission for the Conservation of Southern Bluefin Tuna (“CCSBT”) “Resolution on the Implementation of a CCSBT Catch Documentation Scheme (modified 19 October 2009) www.ccsbt.org/docs/pdf/about_the_commission/Resolution_CDS.pdf, (accessed 27/01/2011) - CDS forms include: Farm Stocking form, Farm Transfer form, REEPS form and a Catch tagging form.

be tagged.⁴¹⁴ The information collected is exchanged with other members and co-operating non-members.⁴¹⁵

One gauge of the success of the CCAMLR CDS is that non-CDS toothfish is reportedly fetching lower prices.⁴¹⁶ However the CDS is not without its criticisms. Greenpeace argue CDS doesn't have a wide enough membership to be successful, they propose that the toothfish should be protected under CITES⁴¹⁷ which has wider membership than CCAMLR.⁴¹⁸ Furthermore Catch Documentation Forms are easily to fill out dishonestly and also IUU fishers will seek out and develop markets in non-CCAMLR countries that don't require CDS data.⁴¹⁹

Another port State measure that is implements part of the MCS component of the Compliance Agreement and the IPOA-IUU in order to combat IUU vessel 'flag-hopping' is the use of **IUU Vessel lists or Blacklists**. Addressing the practice of 'flag-hopping' the Compliance Agreement requires;⁴²⁰

"States parties [to] exchange information amongst themselves, either directly or through the FAO, with respect to activities of fishing vessels flying the flags of non-parties that undermine the effectiveness of international conservation and management measures."

Furthermore, the IPOA-IUU;⁴²¹

"States, acting through relevant regional fisheries management organizations, should take action to strengthen and develop innovative ways, in conformity with international law, to prevent, deter, and eliminate IUU fishing."

Some of these measures include the requirement to "establish and cooperate in the exchange of information on vessels engaged in or supporting IUU fishing"⁴²² Most RFMOs have a 'blacklist'.⁴²³ The ICCAT blacklist documents vessel's Serial Number, Lloyds/IMO Number, Name of Vessel (Latin), Current Flag, Owner Name, Owner Address, Owner Place Registration,

⁴¹⁴ Commission for the Conservation of Southern Bluefin Tuna ("CCSBT") "Resolution on the Implementation of a CCSBT Catch Documentation Scheme (modified 19 October 2009), Art 4.

⁴¹⁵ *Ibid*, Art 6.

⁴¹⁶ Rachel Baird, "CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries" (2005) 36 VUWLR 733., 735-6.

⁴¹⁷ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, Art 5, Appendix II).

⁴¹⁸ Greenpeace "Critique of the CCAMLR Catch Documentation Scheme [1999] as a Mechanism to Prevent Illegal, Unregulated and Unreported Fishing for Toothfish Species in the Southern Ocean" (Greenpeace, 2000) <http://archive.greenpeace.org/oceans/reports/ccamlrcritique.pdf> (accessed 27/1/11)

⁴¹⁹ Dean Bialek, "Measures Under International Law for the Conservation of the Patagonian Toothfish in the Southern Ocean" (2003) 34 ODIL 105, 126; Greenpeace "Critique of the CCAMLR Catch Documentation Scheme [1999] as a Mechanism to Prevent Illegal, Unregulated and Unreported Fishing for Toothfish Species in the Southern Ocean" (Greenpeace, 2000) <http://archive.greenpeace.org/oceans/reports/ccamlrcritique.pdf> (accessed 27/1/11).

⁴²⁰ FAO – Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas ("Compliance Agreement") (1994, 33 ILM 968) Art 8; Rachel Baird, "CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries" (2005) 36 VUWLR 733., 751.

⁴²¹ Food and Agriculture Organization of the UN, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing ("IPOA-IUU") (FAO, Rome, 2002), art 80.

⁴²² *Ibid*.

⁴²³ The IOTC IUU List <http://www.iotc.org/English/iuu/search.php> (accessed 01/02/10); ICCAT IUU Vessel List <http://iccat.int/en/IUU.asp> (accessed 01/02/11); WCPFC IUU Vessel List <http://www.wcpfc.int/vessels> (accessed 01/02/11).

Operator Name, Operator Address, Radio Call Sign, Date Included on the List.⁴²⁴ Also some RFMOs such as ICCAT apply reverse logic and have adopted a “white list” system, where only fishing vessels that are on the list are authorised to fish in the Convention waters.⁴²⁵

The exchange of the above information makes it difficult for non-compliant vessels to reflag to an FOC or ‘flag-hop’, because both flag states and port states know the ‘real’ flag.⁴²⁶ Freestone acknowledges the unreliability of databases (and the data),⁴²⁷ for instance in New Zealand much of IUU intelligence is gathered by other ships. However despite this, the unsuccessful injunction to preclude the sharing of IUU evidence with CCAMLR and the vessel’s flag state sought by the Namibian vessel *Paloma V* in the New Zealand High Court is evidence of how far a state will go to prevent its inclusion on a blacklist.⁴²⁸

However PSM alone are not sufficient to curb IUU fishing – international cooperation is necessary in order to achieve efficiency and effectiveness in the identification of non-complying vessels. The development of port state control at regional level has been discussed since 2000 in several international fora.⁴²⁹

In Rome in September 2004 a draft MOU called *Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing* was presented at the Technical Consultation on Port State Measures.⁴³⁰ At the 26th session of COFI in 2006, COFI endorsed the Model Scheme on Port State Measures to Combat IUU Fishing, which recommends international minimum standards for PSM, requiring appropriate implementation at the regional or national level.⁴³¹ In 2007 COFI acknowledged the urgent need for a comprehensive suite of PSM to combat IUU fishing, and in 2007 heard the global call for a binding agreement on PSM based on the Model Scheme and the IPOA-IUU. The Port State Measures Agreement (PSMA) was approved by the FAO Conference at its Thirty-sixth Session on 22 November 2009.⁴³²

The PSMA empowers port states to prevent illegally caught fish from entering international markets through their ports. Under the terms of the Agreement, foreign vessels will provide advance notice and request permission for port entry and as a condition of entry will submit to regular inspections in accordance with universal minimum standards that are set out in the

⁴²⁴ ICCAT IUU Vessel List <http://iccat.int/en/IUU.asp> (accessed 01/02/11).

⁴²⁵ T. Lobach, *Port State Measures*. Paper submitted to the Workshop on Illegal, Unreported and Unregulated (IUU) Fishing Activities, hosted by the OECD Committee for Fisheries, 19-20 April 2004.

⁴²⁶ Camille Goodman, “The Regime for Flag State Responsibility in International Fisheries Law: Effective Fact, Creative Fiction, or Further Work Required?” (2009) 23 A&NZ Mar LJ 157, 168.

⁴²⁷ David Freestone “Implementing Precaution Cautiously: The Precautionary Approach in the Straddling and Highly Migratory Fish Stocks Agreement” in Ellen Hey (ed) *Developments in International Fisheries Law* (Kluwer Law International, The Hague, The Netherlands, 1999) 287, 313.

⁴²⁸ *Omunkete Fishing (Pty) Ltd v Minister of Fisheries* (20 June 2008) WN HC CIV 2008-485-1310, Mallon J for the Court.

⁴²⁹ T. Lobach, “Measures to be Adopted by the Port State in Combating IUU Fishing” in *Report of and Papers Presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing*, (Sydney, Australia, 15-19 May 2000, FAO Fisheries Report No. 666 (2001)).

⁴³⁰ Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments” [2006] *FAO Legal Papers Online* #61 (November 2006) p 14.

⁴³¹ *Ibid.*

⁴³² FAO, “Database on Port State Measures” Food and Agriculture Organization of the United Nations website, <http://www.fao.org/fishery/psm/en> [accessed 28th January 2011].

Agreement. Under the Agreement vessels that have engaged in IUU activities will be “denied use of port or certain port services and information sharing networks will be created.”⁴³³

Furthermore in the market place, in the context of normal industry and commerce, customers are increasingly demanding information on origin.⁴³⁴ The implementation of schemes such as the CDS offers the additional advantage that data and information can be collected by RFMOs, and passed on to the discerning consumer. Furthermore this type of information can be particularly useful in identifying major markets and trade flows.⁴³⁵ In addition to this with the continued proliferation of IUU activity some RFMOs have even pursued the possibility of introducing trade embargoes on the harvest of fish from certain origins.⁴³⁶

PSMs although not without criticism are arguably much more cost effective than pursuing IUU fishing vessels on the high seas.⁴³⁷ What is clear is that as long as the IUU fishing pays, and IUU fishers have no risk of real sanction, IUU fishing activities will continue to be extremely difficult to completely eliminate.⁴³⁸ In the meantime, PMS will continue to knock away at IUU fishing profitability, by eliminating or at least decreasing the opportunity to land IUU Fish.

⁴³³ FAO, “Database on Port State Measures” Food and Agriculture Organization of the United Nations website, <http://www.fao.org/fishery/psm/en> [accessed 28th January 2011].

⁴³⁴ OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France 2005) p 30.

⁴³⁵ *Ibid.*

⁴³⁶ *Ibid.*, pp 31-32.

⁴³⁷ Rachel Baird, *Aspects of illegal, unreported, and unregulated fishing in the Southern Ocean*, (Springer, Dordrecht, Netherlands, 2006), 245.

⁴³⁸ Kristina M Gjerde “High Seas Fisheries Management under the Convention on the Law of the Sea” in David Freestone et al (ed) *The Law of the Sea* (Oxford University Press, Oxford, 2006) 281-307, 301.

VI CONCLUSION

From the 16th Century States have been well aware of the susceptibility of fish to overfishing.⁴³⁹ Furthermore this susceptibility of Marine biodiversity to overfishing and over-harvesting came to a head in the 1970s with the publication of many reports illustrating the sad state of affairs of the high seas fisheries, many of which directly applied Hardin's *tragedy of commons*.⁴⁴⁰ This period ushered in a new period of international co-operation with the appearance of RFMOs who were charged with spreading the conservation message and with managing fish stocks.⁴⁴¹ Arguably it is this new awareness of the fragility of the high seas biota to fishing that prompted the inclusion into UNCLOS of this new normative framework that urged states to co-operate in the management in high seas fishstocks and to adhere conservation measures set by RFMOs.⁴⁴²

Yet it is a central premise of this thesis that it is at this normative juncture that the regime that resulted from the codification of the Law of the Sea in UNCLOS, became unable to regulate the high seas because of two foundational principles of high seas regime; the principle of *exclusive flag state jurisdiction over vessels of high seas flying the flag of the flag state*, and the *freedom of fishing (and of navigation) on the high seas*. These widely accepted historic norms represented obstacles to any meaningful governance over high seas resources both directly and indirectly.

It is the contention of this thesis that the idea of a free sea for fishing that is promulgated in UNCLOS, as a concept today is obsolete.⁴⁴³ It is my opinion the United Nations Convention on Law of the Sea is an incredible convention and it is regarded by many as a triumph of international co-operation – and in many contexts its regulation and foresight is impressive. It took years and years of intense negotiation and renegotiation to become a formal instrument of International law. However, arguably, in the context of High Seas fisheries and the management of straddling and highly migratory fish stocks; UNCLOS has shown itself to be wanting.

This thesis has outlined the ways by which in the context of sustainable management of fishstocks on the high seas, the regime set up by UNCLOS is inadequate. For example UNCLOS does not allow for any punitive measures for the breach of any RFMO management provision or engaging in IUU fishing. In the content of the high seas, the right to inspect a ship, even if that ship is suspected to be engaging in IUU Fishing is limited to five grounds; none of the grounds have anything to do with fishing;⁴⁴⁴

“[No ship] justified in boarding it unless there is reasonable ground for suspecting that:

- (a) the ship is engaged in piracy;
- (b) the ship is engaged in the slave trade;

⁴³⁹ Jon M. Van Dyke, “1. Sharing Ocean Resources – In a Time of Scarcity and Selfishness” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) 3-36: 3.

⁴⁴⁰ Garrett Hardin, “The Tragedy of the Commons” (1968) *Science*, 162:1243-1248.

⁴⁴¹ EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document* http://trade.ec.europa.eu/doclib/docs/2007/march/tradoc_133506.pdf [accessed 31/01/2011].

⁴⁴² United Nations Convention on Law of the Sea (10 December 1982) 1833 UNTS 396; Articles 64-68 & 116-112.

⁴⁴³ Sarika Cullis-Suzuki & Daniel Pauly, “Evaluating Global Regional Fisheries Management Organisations: Methodology and Scoring” [2009] *Working Paper #2009-12*, Fisheries Centre, University of British Columbia, p2.

⁴⁴⁴ UNCLOS, Article 110.

- (c) *the ship is engaged in unauthorized broadcasting and the flag State of the warship has jurisdiction under article 109;*
- (d) *the ship is without nationality; or*
- (e) *though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.”*

We have already ascertained that UNCLOS has declared freedom to fish the high seas the high seas, subject only to a duty to conserve fishstocks – which UNCLOS has left to the flag state to police; and which ITLOS in the *M/V Saiga Case* confirmed. When it comes to International Fisheries on the High Seas, flag state responsibility has according to Goodman become;⁴⁴⁵

“the subject of an almost entirely different regime, where attention is centred on the responsible flag State as the key panacea for combating illegal, unreported and unregulated (IUU) fishing, and where the concept of flag State responsibility itself is still evolving.”

This new regime continues to be plagued with the same lacuna due to the robust ‘*Grotius freedoms*’ posited in the UNCLOS high seas fisheries regime. Now fishstocks are a fraction of what they once were, and others approach imminent collapse – and still the international high seas fisheries regime lacks the *real* ‘weaponry’ to combat rather simple issues like the need for a ‘genuine link’ between the vessel and its flag State;⁴⁴⁶ combating ‘flags of convenience and open registries for *fishing vessels*. Instead actors have to rely on the responsibility of the flag state. And what are the criteria for a responsible flag State? Goodman asks the important question – “*whether a system of extensive flag State responsibility is an effective approach, or whether we should be concentrating our efforts on the development of complementary controls to assist where flag State jurisdiction fails?*”⁴⁴⁷ After all as Goodman acknowledges; fishing vessels ‘use’ the marine environment in a different way to other ships⁴⁴⁸ – so perhaps it make sense that the regime that pertains to them reflects that use.

Hardin saw back in the 60’s the high seas as a scenario where increasing arrays of vessels are chasing a finite number of fishes. In order to overcome a tragedy it is imperative that we develop a regime that involves meaningful co-operative and sustainable management, that does more than rely on an antiquated normative framework that is built on the assumption that the Seas are either property or they are not, and if they are then they are under the controlled of one state to the exclusion of others and cease to be free.⁴⁴⁹ Today in a climate of ever decreasing marine biodiversity – the requirement of high Seas actors to regulate in favour of that bio-diversity and sustainably manage fishstocks in accordance with a posited antiquated customary normative framework that not only perpetuates, but is underpinned by two inconsistent doctrines – is ludicrous.

⁴⁴⁵ Camille Goodman, “The Regime for Flag State Responsibility in International Fisheries law: Effective Fact, Creative Fiction, or Further Work Required?”(2009) *A&NZ Maritime Law Journal* 23: 157-169, 157.

⁴⁴⁶ See UNCLOS, Article 91.

⁴⁴⁷ Above at n. 445.

⁴⁴⁸ *Ibid*, p 162.

⁴⁴⁹ See Thomas W. Fulton, *The Sovereignty of the Sea: an Historical Account of the Claims of England* (The Law Book Exchange, Clark, New Jersey, 2005) 21; Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008); Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010).

It is my contention that although all of these international initiatives are ‘hobbled’ by robust Grotius norms formalised in UNCLOS, the co-operation of the international community in response to what is perceived as a major global ailment, and the formalisation of regimes, approaches, plans of action and MOU’s is not only ground breaking, it is norm making. However this is just the beginning. For the interested parties are solution focused, they are aware that IUU fishing not only has economic and social effects, but it pays, and so represents a disincentive to comply with the rules. In order to combat the different types of IUU fishing activities, different responses and widely different actors are involved.⁴⁵⁰ Therefore States are applying a multi-pronged approach to the problem. Not only has the response been legal, it has also been political and economic. States have begun to explore “*actions that could be taken to modify IUU operators’ incentives structure by reducing revenues from IUU fishing, increasing the operating costs for IUU activities, increasing the capital costs of IUU/FOC vessels, and by increasing the cost of risk of engaging in IUU activities.*”⁴⁵¹

I am aware that this thesis has painted a somewhat futile picture of international governance over the high seas fisheries, given the strength of the Grotius norms that unintentionally protect IUU operators from international sanction, and this was my intention. My first chapter illustrated the extent of the normative ‘gestation period’ for high seas norms – where over thousands of years they were applied, debated, changed, consented to and re-applied. This thesis showed that norms like freedom of fishing on the high seas and exclusive flag state jurisdiction were not created in a vacuum, but through the process of international relations that stretches back to *Pax Romana* and Roman legal doctrines of property like *res communis* and *res nullius*. They are a culmination of battles, negotiations and punctuated academic equilibria. Today those norms that govern international relations on the high seas that pertain to fisheries, sit posited in UNCLOS; cumbersome, and inadaptible; the result of a path dependent normative history that arguably serves powerful Coastal states who through the same normative process were able to procure 200nm of prime fishing waters to the exclusion of all other non-nationals. Newer reactive norms like ‘sustainable management, and ‘co-operation’ through sub-regional fisheries institutions, as we have seen are no match for robust and tested international norms of such pedigree. Resulting in a tragedy of the high seas commons, beset by illegal, unreported and unregulated fishing, flags of convenience and the a situation of too many boats chasing too few fish.

Although it was my intention to paint a grim picture of imminent empty oceans, it was not my intention, to dwell on the inability for RFMOs and interested states to effectively regulate the high seas, what Thompson termed as ‘the pathology of the failures’.⁴⁵² I wanted to zero in on the response of the international community who armed with a very meagre arsenal: functional jurisdiction that consisted of little more than a vague set of ‘conservation and sustainable management’ provisions in UNCLOS and *ad hoc* regional fisheries management organisations (RFMOs), in fewer than twenty years have built a high seas fisheries regime. So this thesis is ultimately an optimistic story. A story that charts the course of International high seas fishing

⁴⁵⁰ Bertrand Le Gallic & Anthony Cox, “An Economic Analysis of Illegal, Unreported and Unregulated (IUU) fishing: Key Drivers and Possible Solutions” [2006] *Marine Policy* 30: 689–695, 690.

⁴⁵¹ *Ibid.*

⁴⁵² Barton H. Thompson Jr, “Tragically Difficult: The Obstacles to Governing the Commons” [2000] Working Paper No. 187, John M. Olin Program in Law and Economics, Stanford Law School, 1-54: 3.

States and RFMOs and shows how with *meaningful* and *goal focused* ‘international co-operation’ it is possible to turn lemons into lemonade.

The period between 1993 and 2004 saw the coming into force of a number of international instruments (both binding and voluntary) that have laid the normative framework for a new high seas fisheries regime. The international community is able to be more goals focussed than ever before. In my opinion this is revolutionary – furthermore this unprecedented normative ‘entrepreneurialism’ has had the effect of turning the accepted ‘normative gestation period’ on its head – now with better communicative technology, increased opportunity to co-operate, more international contact, an increased internationalised learned population, market interdependency, globalisation and also ultimately the importance of a sobering international problem at hand, the *normative gestation period* is a fraction of what it used to be. Practices like the precautionary approach is now the accepted *mode d’emploi*, the application of ILO and IMO practices to high seas fisheries to address FOCs are now the norm and most importantly in the context of high seas fisheries management, there is now a concept of responsible flag state conduct and a concept of what is required to facilitate effective high seas management.

Yet the problem of the tragedy of the high seas commons is still far from being successfully addressed – IUU fishing continues to be a worldwide problem, that is “*harmful to current global fish stocks and undermines the effectiveness of measures adopted nationally, regionally and internationally to secure and rebuild fish stocks for the future.*”⁴⁵³ Yet the international community has shown that multiple possibilities exist to address the multiple roots of the problem. Some responses rely on the national legal framework; others rely on international frameworks, as is the case with RFMOs,⁴⁵⁴ but virtually all understand that high seas governance requires a multi-faceted approach. Indeed this was noted at the close of the Organisation for Economic Co-operation and Development Workshop on IUU fishing in April 2004.⁴⁵⁵ Such an approach must include robust port state measures that are widely and consistently applied, that embrace and utilise the principle of flag state jurisdiction and that address the drivers of IUU fishing, especially the market for poached fish.⁴⁵⁶ And yet at the same time, take into account and address the economic and nutritional needs of fishing communities.⁴⁵⁷

One interesting avenue is the excursion into Port State Measures (PSM) as a useful tool to combat IUU fishing.⁴⁵⁸ PSM were first implemented in the two soft law instruments: The 1995 *FAO Code of Conduct for Responsible Fisheries* and the 2001 *FAO International Plan of Action on IUU fishing*. But have later become more formalised and now feature in the PSMA an instrument

⁴⁵³ Bertrand Le Gallic & Anthony Cox, “An Economic Analysis of Illegal, Unreported and Unregulated (IUU) fishing: Key Drivers and Possible Solutions” [2006] *Marine Policy* 30: 689–695, 690.

⁴⁵⁴ *Ibid*, 694.

⁴⁵⁵ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299, 301.

⁴⁵⁶ OECD, *Fish Piracy: Combatting illegal, unreported and unregulated fishing: Workshop on Illegal, Unreported and Unregulated (IUU) Fishing Activities : Key Observations and Findings by the Workshop Chairs* (OECD, 2004) 12; Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) 5(2) *MJIL* 299, 301.

⁴⁵⁷ Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010) p 680.

⁴⁵⁸ FAO – ‘Fisheries and Aquaculture Department Database on Port State Measures’, Text by Skonhoft, A. In: *FAO Fisheries and Aquaculture Department* [online]. Rome. Updated 22 February 2008 <http://www.fao.org/fishery/psm/en> (cited 15 Feb 2011).

which is binding of its signatories. All of these instruments rely on the premise that Port States have Jurisdiction over their ports.⁴⁵⁹ According to the FAO⁴⁶⁰, Port States frequently enact provisions requiring fishing vessels that enter their ports to hold licenses or to comply with other National Port State Measures that would typically include requirements related to prior notification of port entry, use of designated ports, restrictions on port entry and landing/transshipment of fish, restrictions on supplies and services, documentation requirements and port inspections, as well as related measures, such as IUU vessel listing, trade-related measures and sanctions.⁴⁶¹ Another interesting avenue that is currently being explored that serves to dis-incentivise IUU fishing by removing the lucrative economic component of the practice, is trade measures and consumer campaigns – ultimately the consumer is the final destination of poached fish, and when they become concerned about the journey of a fish from the sea to their plate – the rationale is that the engagement of fishers in the practice of IUU fishing will no longer be sustainable

In the management of high seas fisheries and the combat of IUU fishing, in the face of the lack of enforcement jurisdiction over 3rd states and FOCs. Miller identified two possible approaches open to RFMOs:⁴⁶²

1. “Ignore IUU fishing until stocks become self-regulating (i.e. fishing is no longer sustainable); or
2. Improve current, and develop new, initiatives to combat IUU fishing.”

Option 1 is not tenable not only because it is “contrary to current best practice” and is not sanctioned by international law, but also because it could result in irreversible marine ecosystem collapse and the extinction of certain species of fish. Option 2 is really the only option open to RFMOs. Stokke and Vidas point out that contemporary high seas fisheries management needs to implement measures that are designed to combat IUU operations in three segments;⁴⁶³

1. Fishing States and RFMOs need to address fishing vessel activity, from vessel registration to the point of landing of fish at a port. This is what Stokke and Vidas term “*the international segment ‘at sea’, which corresponds largely to what is understood as IUU fishing.*”
2. Fishing States and RFMOs need to address “*the logistical aspect of an IUU operation addresses the organisation of supplies and services, and is largely played out in a transnational sphere.*” Stokke and Vidas argue that it is in this flexibility that the strength of IUU operation is to be found.
3. Fishing States and RFMOs need to address the income flows and net income of IUU operations, which is what Stokke and Vidas term the “*catch/product in international trade and market*”.

⁴⁵⁹ UNCLOS, art 218.

⁴⁶⁰ FAO, “Fisheries and Aquaculture Department Database on Port State Measures” Text by A, Skonhoft in *FAO Fisheries and Aquaculture Department [online](Rome. Updated 22 February 2008)*

⁴⁶¹ *Ibid.*

⁴⁶² Denzil G.M. Miller, “What Role for RFMOs?” in OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), pp 329-330, 329.

⁴⁶³ Olav Schram Stokke and Davor Vidas, “Chapter 1: Regulating IUU Fishing or Combating IUU Operations?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 19-48; 22.

Furthermore, effective high seas management actors must be able to ‘to cut across those three segments.’⁴⁶⁴ This approach to the containment of IUU fishing is consistent with the recommendation of the IPOA-IUU which states;⁴⁶⁵

“States should embrace measures building on the primary responsibility of the flag State and using all available jurisdictions in accordance with international law, including port State measures, coastal State measures, market-related measures and measures to ensure that nationals do not support or engage in IUU fishing.”

Haward argues that despite “*the broadening of ocean governance through the development and entry into force of hard law instruments and soft law agreements, the effectiveness of governance remains unclear, while key distant water fishing states reject key provisions of UNFSA.*” This point is shared by New Zealand who stated in a speech on subsidies to the WTO;⁴⁶⁶

“There remains a very significant gap between international commitments and their implementation. Budgetary constraints and insufficient human institutional capacity present obstacles that are compounded by the lack of political will to undertake difficult but necessary policy reforms. At the national level, better integration among relevant government agencies is widely needed.”

Yet HSTF points out that the “*cumulative effect of these instruments has undoubtedly been to change the nature and the location of grossly unsustainable high seas fishing, they have not stopped it.*”⁴⁶⁷ It will take time to win the war on IUU fishing, for there is no one single solution that will serve to eliminate its practice.⁴⁶⁸ But in the meantime, the international community and RFMOs alike have shown unequivocally that they are not only up for the challenge, they are in for the good fight – for they are not just in it for the fish – they are also in it for the people.

⁴⁶⁴ Olav Schram Stokke and Davor Vidas, “Chapter 1: Regulating IUU Fishing or Combating IUU Operations?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 19-48; 22.

⁴⁶⁵ IPOA-IUU, paragraph 9.3.

⁴⁶⁶ WTO, Fisheries Subsidies: UNEP Workshop on Fisheries Subsidies and Sustainable Fisheries Management (Communication from New Zealand, MFAT TN/RL/W/161 8 June 2004).

⁴⁶⁷ HSTF “High Seas Governance” HSTF/09 (meeting of the High Seas Task Force, Paris, 9 March 2005) 1.

⁴⁶⁸ Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) 5(2) MJIL 299, 301.

VII BIBLIOGRAPHY

- David Agnew et al., “The Global Extent of Illegal Fishing” [2008] *MRAG/(Fisheries Ecosystems Restoration Research) FERR Final Report* 1-32
- David J. Agnew and Colin T. Barnes, “Chapter 11: Economic Aspects and Drivers of IUU Fishing: Building a Framework” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 169-200.
- M. Allsopp, R. Page, P. Johnston & D. Santillo- *The State of the World's Oceans* (2009, Springer Science + Business Media B.V., Dordrecht, The Netherlands)
- Jim Anderton, [Pesca2.com], “Distant nations block tuna conservation measures” [2007] *Pesca2.com*, New Zealand Ministry of Fisheries Press Release, 12/12/2007 http://www.pesca2.com/ingles/informacion/desc_noticia.cfm?noticia=8517 [accessed 31/01/2011].
- Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006).
- APEC, “Case Study on Illegal, Unreported and Unregulated (IUU) Fishing off the East Coast of Peninsular Malaysia”[2008] *Final Report*, submitted by Sea Resources Management Sdn Bhd, Selangor, Malaysia for APEC, 1-190.
- Wesley A. Armstrong and Charles W. Oliver, “Recent use of Fish Aggregation Devices in the Eastern Tropical Pacific Tuna Purse-Seine Fishery 1990-1994” (March 1996) *Administrative Report LJ-95-14*, Southwest Fisheries Science Centre, NOAA Fisheries Service.
- Jesús M. Arrieta, Sophie Arnaud-Haond, & Carlos M. Duarte, “What Lies Underneath: Conserving the Oceans’ Genetic Resources” [2010] *PNAS* 107(43): 18318–18324 www.pnas.org/cgi/doi/10.1073/pnas.0911897107 [accessed 4/12/2010].
- Andreas H. Aure, “Acquisition of rights over the sea according to Hugo Grotius’ theory of natural law” [2008] REUNA Workshop, Bergen 12 – 14 May 2008 Europe overseas: Civil and Common law Receptions 1-15. <http://blogit.helsinki.fi/reuna/AureREVISED.doc> [accessed 13 Aug 2010].
- Rachel Baird, “Illegal, Unreported and Unregulated Fishing: An Analysis of the Legal, Economic and Historical Factors Relevant to its Developments and Persistence” (2004) *MJIL* 5(2): 299.
- Rachel Baird, “CCAMLR Initiatives to Counter Flag State Non-Enforcement in Southern Ocean Fisheries” (2005) *VUWLR* 36: 733.
- Rachel Baird, *Aspects of Illegal, Unreported and Unregulated Fishing in the Southern Ocean* (2006, Springer, Dordrecht, The Netherlands.)
- Rachel Baird, “Arrests in a Cold Climate (Part 2)- Shaping Hot Pursuit through State Practice” (2009) *13 Antarctic and Southern Ocean Law and Policy Occasional Papers*, 1-21.
- David A. Balton, “Chapter 2: Global Review of Illegal, Unreported and Unregulated Fishing Issues: What's the Problem?” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 49-50.
- David Balton, “Dealing with the “Bad Actors” of Ocean Fisheries” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 57-64.
- Frederick W. Bell, “Technological Externalities and Common-Property Resources: An Empirical Study of the U.S. Northern Lobster Fishery.” (Jan-Feb 1972) *Journal of Political Economy*, 148-158.

- Isolina Boto, Camilla La Peccerella and Silvia Scalco (CTA), “Fighting against Illegal, Unreported and Unregulated (IUU) fishing: Impacts and challenges for ACP countries” [29 April 2009] *A Reader: Resources on Illegal, Unreported and Unregulated (IUU) fishing* (Briefing session n° 10. Brussels Rural Development Briefings - a series of meetings on ACP-EU development issues, Brussels).
- Boudewijn Bouckaert & Gerrit De Geest (eds), *Encyclopedia of Law and Economics, Volume I. The History and Methodology of Law and Economics* (Edward Elgar, Cheltenham, UK: September 2000). <http://users.ugent.be/~gdegeest/tablebib.htm>
- Broadhurst, “The Long Hook of High Seas Fisheries Management: Use of the Nationality Base of Jurisdiction to Combat IUU Fishing in the CCAMLR Area” (*LLM Thesis*, Faculty of Law, Victoria University of Wellington, 19th February 2002).
- William T. Burke, “Compatibility and Precaution in the 1995 Straddling Stock Agreement” in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) pp105-126.
- Marie Alice Chardeaux, *Les Choses Communes: Thèse Droit Privé* (La Librairie Juridique de Référence [LGDJ], Paris, 2006)
- Christophe Bene, “When Fishery Rhymes with Poverty: A First Step Beyond the Old Paradigm on Poverty in Small-Scale Fisheries” [2003] *World Development* 31(6): 949–975.
- Commonwealth Foundation, “From Kilifi to Windhoek, Raising Awareness and Tackling Illegal, Unreported and Unregulated (IUU) and Over-Fishing” [2008] *Regional Fisheries Series No.1* www.commonwealthfisheries.org
- Daniel K. Benjamin, “Fisheries are Classic Example of the "Tragedy of the Commons"” (2001) *PERC Reports*: Volume 19, No. 1.
- Fikret Berkes, “Community-based Conservation in a Globalized World” [2007] *PNAS* [2007] (39): 15188–15193 www.pnas.org/cgi/doi/10.1073/pnas.0702098104 [accessed 4/12/2010].
- Dean Bialek, “Measures Under International Law for the Conservation of the Patagonian Toothfish in the Southern Ocean” (2003) *Ocean Development & International Law* 34: 105.
- Bridges, “Lack of Consensus Leaves Bluefin Tuna on the Market” [October 2009] *BioRes Trade and Environment Review* 9(17): 6-7 <http://ictsd.org/downloads/biores/biores9-17.pdf> [accessed 24/01/2011]
- Bridges, “Agreement on Fisheries Subsidies ‘Principles’ at WTO” [October 2009] *BioRes Trade and Environment Review* 9(17): 7-8 <http://ictsd.org/downloads/biores/biores9-17.pdf> [accessed 24/01/2011]
- Nancy R. Buchan et al., “Globalization and Human Cooperation” [2009] *PNAS* 106(11) 4138–4142 www.pnas.org/cgi/doi/10.1073/pnas.0809522106 [accessed 21/12/2010].
- Hugo Caminos (ed) *Law of the Sea* (Dartmouth Publishing and Ashgate Publishing Ltd, Aldershot, 2001)
- R.R. Churchill and A.V Lowe, *The Law of the Sea* (3rd Edition. Juris Publishing, Manchester, UK. 1999).
- Sarika Cullis-Suzuki & Daniel Pauly, “Evaluating Global Regional Fisheries Management Organisations: Methodology and Scoring” [2009] *Working Paper #2009-12*, Fisheries Centre, University of British Columbia.
- Paul A. David, “Path dependence, its critics and the quest for ‘historical economics’” [1997] in P. Garrouste and S. Ioannides (eds), *Evolution and Path Dependence in Economic Ideas: Past and Present* (Edward Elgar Publishing, Cheltenham, England. 2000).

- Leslie Delagran and Eric Bilsky, “Marine fisheries and CITES: Breaking the cycle of overexploitation” [March 2010] *BioRes Trade and Environment Review* 4(1)
<http://ictsd.org/downloads/bioresreview/biores4-1.pdf> [accessed 24/01/2011]
- Thomas Dietz, Elinor Ostrom & Paul C. Stern, “The Struggle to Govern the Commons” [2003] *Science* 302, 1907-1912.
- Hasjim Djalal, “The Emergence of the Concept of Fishing Entities: A Note” [2006] *Ocean Development & International Law*, 37(2): 117- 121.
- Doulman, ‘*Illegal, Unreported and Unregulated Fishing: Mandate for an International Plan of Action*’ (paper prepared for Expert Consultation on IUU Fishing organised by the Government of Australia in cooperation with the FAO, Sydney, 15-19 May 2000)
http://www.affa.gov.au/corporate_docs/publications/pdf/fisheries/eciouuf/ausiuu2000.pdf
- DSCC, “A Net with Holes: the Regional Fisheries Management System” [2004] *Policy Paper: RMFOs, Deep Sea Conservation Coalition* <http://www.illegal-fishing.info/uploads/RMFOs-DeepSeaConsCoalition.pdf> [accessed 31/01/2011]
- Syma A. Ebbin, Alf Håkon Hoel and Are K. Sydnes (eds) *A Sea Change: The Exclusive Economic Zone and Governance Institutions for Living Marine Resources* (Springer, Dordrecht, the Netherlands, 2005).
- W. Edeson, “Tools to Address IUU Fishing: The Current Legal Situation”, Expert Consultation on Illegal, Unreported and Unregulated Fishing Organized by the Government of Australia in Co-operation with FAO; AUS:IUU/2000/8.
- W. Edeson, “The International Plan of Action on Illegal, Unreported and Unregulated Fishing: The Legal Context of a Non-legally binding Instrument” [2001] *International Journal of Marine and Coastal law*, 16(4), 603–623.
- EUTC, “International Fisheries Governance” [2007] *EU Trade Commission Document* http://trade.ec.europa.eu/doclib/docs/2007/march/tradoc_133506.pdf
- Malcolm D. Evans, *International Law* (3rd Edition, Oxford University Press, Oxford, 2010)
- Adriana Fabra, “Preliminary findings from a gap analysis: A comparison of RFMO port State measures with the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing” (2010) The Pew Environment Group Report <<http://www.pewtrusts.org>>
- FAO, *Stopping Illegal, Unreported and Unregulated Fishing* (Food and Agriculture Organisation of the United Nations, Rome, 2002)
- FAO, *New treaty will leave ‘fish pirates’ without safe haven* (01-09-2009)
<http://www.fao.org/news/story/en/item/29592/icode/> [accessed 4/12/2010]
- FAO, *Report of the Expert Consultation on Fishing Vessels Operating under Open Registries and Their Impact on Illegal, Unreported and Unregulated Fishing* (2003) FAO Doc FIP/R722.
- FAO, “Fisheries and Aquaculture Department Database on Port State Measures” Text by A. Skonhøft in *FAO Fisheries and Aquaculture Department [online]*(Rome. Updated 22 February 2008)
- James D. Fearon, “Domestic Politics, foreign policy, and the Theories of International Relations” [1998] *Annual Review Political Science* 1:289-313
- R.D. Fischer and L.J. Mirman, “Strategic Dynamic Interaction: Fish Wars” (1992) *Journal of Economic Dynamics and Control* 16: 267-287.
- J. Fitzpatrick, “Measures to Enhance the Capability of a Flag State to Exercise Effective Control over a Fishing Vessel” in *Report of and Papers Presented at the Expert Consultation on*

Illegal, Unreported and Unregulated Fishing, (Sydney, Australia, 15-19 May 2000; FAO Fisheries Report No. 666 (2001)).

- Charlotte De Fontaubert & Indrani Lutchman (Eds), *Achieving sustainable fisheries: implementing the new international legal regime* (IUCN - International Union for Conservation of Nature and Natural Resources, Cambridge, UK. 2003).
- David Freestone, “Implementing Precaution Cautiously: The Precautionary Approach in the Straddling and Highly Migratory Fish Stocks Agreement” in Ellen Hey (ed) *Developments in International Fisheries Law* (Kluwer Law International, The Hague, The Netherlands, 1999), 287-325.
- David Freestone, “Problems of High Seas Governance” [2009] UNSWLRS 42 <http://www.austlii.edu.au/au/journals/UNSWLRS/2009/42.html> [accessed 04/12/2010]
- Bertrand Le Gallic & Anthony Cox, “An Economic Analysis of Illegal, Unreported and Unregulated (IUU) fishing: Key Drivers and Possible Solutions” [2006] *Marine Policy* 30: 689–695.
- Maria Gavouneli *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2007).
- Matthew Gianni, “IUU Fishing and the Cost to Flag of Convenience Countries” in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 285-291.
- Kristina M Gjerde “Moving from Words to Action” [2005] *The International Journal of Marine and Coastal Law* 23(3-4): 323-344.
- Kristina M Gjerde “High Seas Fisheries Management under the Convention on the Law of the Sea” in David Freestone et al (ed) *The Law of the Sea* (Oxford University Press, Oxford, 2006) 281-307.
- Camille Goodman, “The Regime for Flag State Responsibility in International Fisheries law: Effective Fact, Creative Fiction, or Further Work Required?” (2009) *A&NZ Maritime Law Journal* 23: 157-169.
- Paul Greenberg, “Other Fish to Fry” (September 8 2006) New York Times <http://www.nytimes.com/2006/09/08/opinion/08greenberg.html> [accessed 4/12/2010]
- Paul Greenberg, “The Catch” (October 23, 2005) New York Times <http://www.nytimes.com/2005/10/23/opinion/> [accessed 30/11/2010]
- Paul Greenberg, “Tuna’s End” (27th June, 2010) New York Times (Sunday Magazine) p MM28.
- Paul Greenberg, “Seafood Print” (October 2010) *National Geographic Magazine* 218(4): 78-89.
- Greenpeace, “Taking Tuna Out of the Can: Rescue Plan for the World’s Favourite Fish” [2007] Greenpeace International, Amsterdam, The Netherlands. <http://www.greenpeace.org>.
- Ndiaga Gueye, *General considerations on Illegal, Unreported and Unregulated (IUU) Fisheries, Special paper prepared for the Fighting against Illegal, Unreported and Unregulated Fishing* (lunch side-event in the context of the 16th ACP-UE Joint Parliamentary Assembly, Port Moresby, Papua New Guinea. 25th November 2008).
- Q. Hanich & M. Tsamenyi (eds), *Navigating Pacific Fisheries: Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region* (2009, Ancors, University of Wollongong, Australia).

- Garrett Hardin, "The Tragedy of the Commons" (1968) *Science*, 162:1243-1248.
<http://www.dicoff.org/page95.htm> [accessed 2/12/2010].
- J Harrison, *Evolution of the Law of the Sea*, (5 July 2007) PhD Thesis, School of Law, University of Edinburgh.
- Marcus Haward "Coordination and Capacity in Ocean Governance" (2006) Paper presented at the *Fulbright Symposium Maritime Governance and Security: Australian and American Perspectives* (University of Tasmania, Hobart 28 – 29 June 2006)
- Marcus Haward & Joanna Vince, *Oceans Governance in the Twenty-first Century: Managing the Blue Planet* (Edward Elgar Publishing Ltd, Cheltenham, UK, 2008).
- A.C. Haynie, R. L. Hicks & K. E. Schnier, "Common Property, Information, and Cooperation: Commercial Fishing in the Bering Sea" (2008) College of William and Mary Working Paper Number 80, 1-29.
- Phil Heatley, "NZ signs Port State Measures Agreement to fight illegal, unregulated and unreported fishing" (18 December, 2009)
<http://www.beehive.govt.nz/release/nz+signs+port+state+measures+agreement+fight+illegal+unregulated+and+unreported+fishing> [Accessed 20 /12/2010]
- Ingo Klaus Heidbrink, "The Oceans as the Common Property of Mankind from Early Modern Period to Today" [2008] *History Compass* 6(2): 659–672.
- Tore Henriksen, Geir Hønneland, and Are Sydnæs *Law and Politics in Ocean Governance: The UN Fish Stocks Agreement and Regional Fisheries Management Regimes* (Martinus Nijhof Publishers, Leiden, the Netherlands, 2006).
- Ellen Hey (ed) *Developments in International Fisheries Law* (Kluwer Law International, The Hague, The Netherlands, 1999).
- G. Hosch, "IUU Fishing, Overcapacity and the Need for Sound Fisheries Management" [2009] *BP Session 2*, African, Caribbean and Pacific Group of States (ACP Group), ACP/84/055/09 (Brussels, 19 May 2009 SEDT/GH/fk).
- HSTF "High Seas Governance" HSTF/09 (meeting of the High Seas Task Force, Paris, 9 March 2005).
- HSTF "Closing the Net: Stopping Illegal Fishing on the High Seas" (*Summary proposals of the Ministerially-Led Task Force on IUU Fishing on the High Seas*) PB 11676 (March 2006).
- Shi Ling Hsu, "What is a Tragedy of the Commons: Overfishing and the Campaign Spending Problem" [2005] *Albany Law Review* 69: 102-165.
- Svein Jentoft and Bonnie McCay, "User Participation in Fisheries Management: Lessons Drawn from International Experiences (1995) *Marine Policy*, Vol. 19, 3: 227-246.
- Arne Kalland, "Mare Closum as a Management Tool in Fishing Societies" in James Oglethorpe (ed), *Tenure and Sustainable Use* (SUI Technical Series Vol. 2, IUCN, Washington DC, 1998) 119-129.
- Makhdoom Ali Khan, "the Juridical Concept of the Continental Shelf" in Hugo Caminos (ed) *Law of the Sea* (Dartmouth Publishing and Ashgate Publishing Ltd, Aldershot, 2001) 191-212
- W.S.M Knight, *The Life and Works of Hugo Grotius* (London 1925).
- T.B. Koh, "A Constitution for the Oceans" Statement at Final Session of Third Conference on the Law of the Sea, Montego Bay December 1982, in Myron H. Nordquist, *United Nations Convention on the Law of the Sea, 1982: a commentary, Volume 1* (Martinus Nijhof Publishers, AD Dordrecht, the Netherlands, 1985) pp 11-17.

- M. Lack, “Catching On? Trade-related Measures as a Fisheries Management Tool” [2007] *TRAFFIC International*, Cambridge, UK. <http://www.traffic.org/content/850.pdf>
- Larschan & B. Brennan, “Common Heritage of Mankind Principle in International Law” (1982-1983) *Columbia Journal of Transnational Law* 21; 305-338.
- Donald R. Leal, “Individual Fishing Quotas: Long Overdue” (June 25, 2002) *The Oregonian*, <http://www.perc.org/articles/article153.php> [accessed 2/12/2010].
- Donald R. Leal, “A New Fishing Tragedy: The "Anti-commons" Leads to Underuse”, (2004) *PERC Reports*: Volume 22, No. 3.
- Donald R. Leal, “Homesteading the Oceans”, (2000) *PERC Reports*: Volume 18, No. 3, 12-14.
- S. Liebowitz & S Margolis, “0770 Path Dependence” in Boudewijn Bouckaert & Gerrit De Geest (eds), *Encyclopedia of Law and Economics, Volume I. The History and Methodology of Law and Economics* (Edward Elgar, Cheltenham, UK: September 2000) 981-998. <http://encyclo.findlaw.com/0770book.pdf>
- T. Lobach, “Measures to be Adopted by the Port State in Combating IUU Fishing” in *Report of and Papers Presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing*, (Sydney, Australia, 15-19 May 2000, FAO Fisheries Report No. 666 (2001)).
- Michael Lodge “Are Present International High Seas Governance Structures Sufficient to Reap the Benefits of Globalisation?” in OECD, *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop* (OECD 2007), Chapter 10, 147.
- Michael Lodge, *Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations* [2007] (Chatham House, London, March 2007. Energy, Environment and Development Programme - EEDP BP 07/01).
- Sebastián Losada , “Pirate Booty: How ICCAT is failing to curb IUU fishing” (September 2007) Greenpeace International, Amsterdam, The Netherlands. http://www.illegal-fishing.info/sub_approach.php?subApproach_id=48 [accessed 30/01/2011]
- Elli Louka, *International Environmental Law: Fairness, Effectiveness, and World Order* (Cambridge University Press, New York, 2006)
- Michael McCarthy, “Fishing Industry Falls Victim to the Tragedy of the Commons” (October 24, 2002) *The Independent* (UK) <http://www.commondreams.org/headlines02/1024-02.htm> [accessed 2/12/2010]
- Ben McIntyre, “The fish that’s too tasty to live” (Wednesday, August 4, 2010) *The Dominion Post*, B5.
- Pio E. Manoa, “Partners or Adversaries? The Role of NGOs in the Implementation of International Fisheries Instruments” in Q. Hanich & M. Tsamenyi (eds), *Navigating Pacific Fisheries: Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region* (2009, Ancors, University of Wollongong, Australia) Chapter 7, pp 163-183.
- Becky Mansfield, “Neoliberalism in the Oceans: “rationalization,” property rights, and the commons question” (2004) *Geoforum* 35: 313–326
- Becky Mansfield, “Rules of Privatization: Contradictions in Neoliberal Regulation of North Pacific Fisheries” (2004) *Annals of the Association of American Geographers*, 94(3): 565–584.

- James Marissen, “Hot Pursuit or No Pursuit? The F. V. South Torni Arrest in 2001” [2002] ANZMLJ 4; (2002) *Maritime Law Association of Australia and New Zealand Journal* 16: 66.
- William L. Morison, *John Austin* (Stanford University Press, Stanford CA, USA. 1982).
- Rebecca Metzner, “Fishing Aspirations and Fishing Capacity: Two Key Management Issues”(2005) *International Journal of Marine & Coastal Law* 20: 459-478.
- Herman Meyers, *The Nationality of Ships* (Martinus Nijhoff, The Hague, Netherlands, 1967) in Ariella D’Andrea, “The “genuine link” concept in responsible fisheries: Legal aspects and recent developments”[2006] *FAO Legal Papers Online* #61 (November 2006).
- David Midson “A New Global Record for an Old Threat” (2009) *Maritime Law Association of Australia and New Zealand Journal* 23: 69.
- Denzil G.M. Miller, “Patagonian Toothfish – The Storm Gatherers” in OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), pp105–145.
- Denzil G.M. Miller, “What Role for RMFOs?” in OECD, *Why Fish Piracy Persists: The Economics of Illegal Unreported and Unregulated Fishing*, (OECD, 2004), pp 329-330.
- Denzil G.M. Miller, *Sustainable Southern Ocean Fisheries: A Model of Responsibility?* (Remarks on Award of WWF Duke of Edinburgh Conservation Medal, Buckingham Palace, London. 17 October 2007) <http://www.illegal-fishing.info/uploads/WWF-Award-millerspeech4.pdf> [accessed 31/01/2011]
- R. A. Myers and B. Worm, “Rapid Worldwide Depletion of Predatory Fish Communities” [2003] *Nature* 423: 280-283.
- P.A. Nickler, “A Tragedy of the Commons for Coastal Fisheries: Contending Prescriptions for Conservation, and the Case for the Atlantic Blue Fin Tuna (1998-1999) *B.C. Environmental Affairs Review*, 26; 549.
- Myron H. Nordquist, *United Nations Convention on the Law of the Sea, 1982: a commentary, Volume 1* (Martinus Nijhof Publishers, AD Dordrecht, the Netherlands, 1985).
- OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004).
- OECD, *Why Fish Piracy Persists: The economics of Illegal, Unreported and Unregulated Fishing* (OECD Publishing, Paris, France. 2005).
- OECD, *Globalisation and Fisheries: Proceedings of an OECD-FAO Workshop* (OECD Publishing, Paris, France. 2007).
- OECD, *Reducing Fishing Capacity: Best Practices for Decommissioning Schemes* (OECD Publishing, Paris, France. 2009).
- James Oglethorpe (ed), *Tenure and Sustainable Use* (SUI Technical Series Vol. 2, IUCN, Washington DC, 1998).
- Elinor Ostrom, “Coping with Tragedies of the Commons” (1999) *Annual Review of Political Science* 2: 493-535.
- Scott Page, “Path Dependence” [2006] *Quarterly Journal of Political Science*, 1: 87–115.
- Mary Ann Palmer, “Chapter 3 - Combatting IUU Fishing: International Legal Developments” in Q. Hanich & M. Tsamenyi (eds), *Navigating Pacific Fisheries: Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region* (2009, Ancors, University of Wollongong, Australia) 71-103.
- Carole Pateman, “The Domination Contract” in Carole Pateman & Charles Wade Mills, *Contract and Domination* (Polity Press, Cambridge, 2007) 35-78.

- Daniel Pauly, “Aquacalypse Now: The End of Fish” (September 28, 2009) *The New Republic* <http://www.tnr.com/article/environment-energy/aquacalypse-now> [accessed 4/12/2010].
- Pew Environment Group, “Preliminary Findings from a Gap Analysis” [2010] *Pew Environment Group Report*, 26th May 2010
- http://www.pewtrusts.org/our_work_report_detail.aspx?id=59165 [accessed 31/01/2011]
- Robert Pomeroy & Fikret Berkes, “Two to Tango: The Role of Government in Fisheries Co-management” *Marine Policy* (1997) Vol. 21, No. 5; 465-480.
- Robert D. Putnam, “Diplomacy and Domestic Politics: The Logic of Two-Level Games” [1988] *International Organization*, (Summer 1988), 42(3): 427-460.
- Kevin Riddle, “Illegal, Unreported, and Unregulated Fishing: Is International Cooperation Contagious?” [2006] *Ocean Development & International Law*, 37(3): 265- 297.
- Donald R. Rothwell and David L. VanderZwaag (eds) *Towards Principled Oceans Governance: Australian and Canadian Approaches and Challenges* (Routledge, Abingdon, Oxford, 2006).
- Marc Rumminger, “Boycotting bluefin isn’t enough—time to turn on the siren” [2011] *Grist: Beacon in the Smog Blog*, 11 January 2011, <http://www.grist.org/article/food-2011-01-11-boycotting-bluefin-isnt-enough-time-to-turn-on-the-siren> [accessed 31/01/2011]
- Gary P. Sampson & W. Bradnee Chambers (eds) *Trade, Environment and the Millenium* (2nd edition, United Nations University Press, New York, 2002).
- Clyde Sanger, *Ordering the Oceans: The Making of the Law of the Sea* (Zed Books Ltd, London, 1986)
- Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000).
- Harry N. Scheiber, K. J. Mengerink, and Y.H. Song, “Ocean Tuna Fisheries, East Asian Rivalries, and International Regulation: Japanese Policies and the Overcapacity/IUU Fishing Conundrum” (2008) *University of Hawai’i Law Review* 30: 97-165.
- Carl-Christian Schmidt, “Economic Drivers of Illegal, Unreported and Unregulated (IUU) Fishing” [2005] *International Journal of Marine & Coastal Law* 20(3-4): 479-508.
- Carl-Christian Schmidt, “Addressing Illegal, Unreported and Unregulated (IUU) Fishing” (2004) Paper prepared for the *International Fisheries Compliance 2004 Conference*, 29-30 September 2004, Brussels.
- David K. Schorr “Fishing Subsidies and the WTO” in Gary P. Sampson & W. Bradnee Chambers (eds) *Trade, Environment and the Millenium* (2nd edition, United Nations University Press, New York, 2002) 175-206
- David K. Schorr, “Healthy Fisheries, Sustainable Trade: Crafting New Rules on Fishing Subsidies in the World Trade Organization” (2004) World Wildlife Fund, (WWF) A WWF Position Paper and Technical Resource, June 2004.
- Jianming Shen “The Relativity and Historical Perspective of the Golden Age of International Law”(2000) *International Legal Theory* 6(1): 15-34.
- Cleo Small, “Regional Fisheries Management Organisations: Their duties and performance in reducing bycatch of albatrosses and other species” [2005] BirdLife Global Seabird Programme, BirdLife International, Cambridge, UK. http://www.birdlife.org/action/science/species/seabirds/rfmo_report.pdf [accessed 31/01/2011]
- Dikdik. Sodik, “Non-Legally Binding International Fisheries Instruments and Measures to Combat Illegal, Unreported and Unregulated Fishing” (2008) *Australian International Law Journal* 15; 129-163.

- Marvin S. Soroos, "The International Commons: A Historical Perspective" (1988) *Environmental Review*: 12(1): 1-22.
- Benjamin Sovacool, "A Game of Cat and Fish: How to Restore the Balance in Sustainable Fisheries Management" [2009] *Ocean Development & International Law*, 40: 97-125.
- Anastasia Strati, Maria Gavouneli & Nikolaos Skourtos, *Unresolved Issues and New Challenges to the Law of the Sea: Time Before and Time After* (Volume 54, Martinus Nijhof Publishers, Leiden, the Netherlands, 2006)
- Olav Schram Stokke, "Governance of high seas fisheries: The role of regime linkages" in D. Vidas and W. Ostreng (eds.), *Order for the Oceans at the Turn of the Century* (Kluwer Law International, The Hague, 1999), pp. 157-172.
- Olav Schram Stokke (ed) *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes* (Oxford University Press, Oxford, 2001)
- Olav Schram Stokke and Davor Vidas, *Regulating IUU Fishing or Combating IUU Operations?* (2004), Paper Submitted for IUU Workshop, 19-20 April 2004, OECD AGR/FI/IUU (2004) in OECD, *Fish piracy: combating illegal, unreported and unregulated fishing*, (OECD Publishing, Paris, France, 2004) pp 19-49.
- Andrew Sugden, "Where to From Here" (2003) *Science* 302; 1906 www.sciencemag.org [Accessed 1/12/2010].
- U.R. Sumaila, J. Alder & H. Keith, "Global Scope and the Economics Illegal Fishing" [2006] *Marine Policy* 30; 696–703
- Are Sydnès, "Regional Fisheries Organisations and International Fisheries Governance" in Syma A. Ebbin, Alf Håkon Hoel and Are K. Sydnès (eds) *A Sea Change: The Exclusive Economic Zone and Governance Institutions for Living Marine Resources* (Springer, Dordrecht, the Netherlands, 2005). Chapter 8, pp 117–135.
- Richard Tarasofsky, "Enhancing the Effectiveness of Regional Fisheries Management Organizations through Trade and Market Measures" [2007] *Energy, Environment and Development Programme EEDP BP 07/04 Briefing Paper*, Chatham House, http://www.illegal-fishing.info/uploads/CH-Fisheries_BP_07_04.pdf [accessed 31/01/2011].
- Barton H. Thompson Jr, "Tragically Difficult: The Obstacles to Governing the Commons" [2000] Working Paper No. 187, John M. Olin Program in Law and Economics, Stanford Law School, 1-54: 2 http://papers.ssrn.com/paper.taf?abstract_id=236031 [accessed 17/01/2011].
- Noah J. Toly, "A Tale of Two Regimes: Instrumentality and Commons Access" (2005) *Bulletin of Science Technology & Society* 25, 1: 26-36.
- Aarón Tornell and Andrés Velasco, "The Tragedy of the Commons and Economic Growth: Why Does Capital Flow from Poor to Rich Countries?" (1992) *The Journal of Political Economy*, Vol. 100, 6: 1208-1231
- James Tully, *An Approach to Political Philosophy: Locke in Contexts* (Cambridge University Press, Cambridge, 1993)
- Jon M. Van Dyke, "1. Sharing Ocean Resources – In a Time of Scarcity and Selfishness" in Harry N. Scheiber, *Law of the Sea: The Common Heritage and Emerging Challenges* (Martinus Nijhoff Publishers, The Hague, Volume 34, 2000) 3-36.
- Vidas and W. Ostreng (eds.), *Order for the Oceans at the Turn of the Century* (Kluwer Law International, The Hague, 1999)
- Budislav Vukas and Davor Vidas, "Flags of Convenience and High Seas Fishing: The Emergence of a Legal Framework" in Olav Schram Stokke (ed) *Governing High Seas*

Fisheries: The Interplay of Global and Regional Regimes (Oxford University Press, Oxford, 2001) 53-90

- Rüdiger Wolfrum, “The Potential of the International Tribunal for the Law of the Sea in the Management and Conservation of Marine Living Resources” [2007] *Presentation given Meeting of the Friends of ITLOS* (by the President of the International Tribunal for the Law of the Sea, Permanent Mission of Germany to the United Nations, New York. 21 June 2007).
- World Bank, “Profish Brief” (September 2008) www.worldbank.org/fish [Accessed 1/12/2010].
- WTO, *Fisheries Subsidies: UNEP Workshop on Fisheries Subsidies and Sustainable Fisheries Management* (Communication from New Zealand, MFAT TN/RL/W/161 8 June 2004).

INTERNATIONAL LEGISLATION

- Harry Truman, *Presidential Proclamation* No. 2667: Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf. 28 September 1945 (Truman Proclamation), <http://www.trumanlibrary.org/proclamations/index.php?pid=252&st=&st1=>
- *Convention on the High Seas*, United Nations Conference on the Law of the Sea, April 29, 1958, 12 U.S.T. 2312, T.I.S. No 5200, 450 UNTS 82.
- *Vienna Convention on the Law of Treaties*, 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980) (“VCLT”).
- *Code of Conduct for Responsible Fisheries*, Food and Agriculture Organisation of the United Nations. Rome, 1995. (“Code of Conduct”) <ftp://ftp.fao.org/docrep/fao/005/v9878e/v9878e00.pdf>
- *United Nations Convention on the Law of the Sea*, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M 1245 (1982). http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm
- *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*. FAO (Food and Agriculture Organisation of the United Nations) Rome, 24 November 1993, 33 ILM 968 (1994) (“Compliance Agreement”) <http://www.fao.org/DOCREP/MEETING/003/X3130m/X3130E00.HTM>
- *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea*, 10 December 1982 Relating to the Conservation and management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Dec 4, 1995, A/CONF.164/37, 8 September 1995, 34 ILM 1542. (“UNFSA or Fish Stocks Agreement”) http://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm
- *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*. FAO (Food and Agriculture Organisation of the United Nations) Rome, 2001. (“IPOA-IUU”) <ftp://ftp.fao.org/docrep/fao/012/y1224e/y1224e00.pdf>
- *Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing*, Annex E to the Report of the Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing, FAO Fisheries Report no. 759, FAO (Food and Agriculture Organisation of the United Nations) Rome, 2004. <ftp://ftp.fao.org/docrep/fao/007/y5787e/y5787e00.pdf>

- *Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*. C 2009/REP Corr. 3, Report of the Thirty-sixth Session of the FAO Conference on Fisheries, FAO (Food and Agriculture Organisation of the United Nations) Rome, 18-23 November 2009.
<ftp://ftp.fao.org/docrep/fao/meeting/018/k6339e.pdf>

COURT CASES

- *Baldick v Jackson* (1910) 30 NZLR 343.
- *Omunkete Fishing (Pty) Ltd v Minister of Fisheries* (20 June 2008) WN HC CIV 2008-485-1310.
- *North Sea Continental Shelf Cases* (Federal Republic of Germany/Denmark and Netherlands) 1969 I.C.J. 3 (Feb 20, 1969).
- *Fisheries Jurisdiction* (United Kingdom v Iceland), 1974 I.C.J. 3, 97 (Merits, July 25, 1974) de Castro, J., concurring.
- *Fisheries Jurisdiction Case*, (Spain v Canada), (*Estai* Case), 1998 I.C.J. 432, (4 December 1998).
- *M/V Saiga (No. 2)* (Saint Vincent and the Grenadines v. Guinea), 1999 I.T.L.O.S. (1 July 1999).

GLOSSARY OF ACRONYMS

✗ CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
✗ CCRF	Code of Conduct for Responsible Fisheries (31 October 1995)
✗ CCSBT	Commission for the Conservation of Southern Bluefin Tuna
✗ CDS	Catch Document Scheme
✗ CECAF	Fishery Committee for the Eastern Central Atlantic
✗ COFI	FAO's Committee on Fisheries
✗ DWFN	Distant Water Fishing Nations
✗ EEZ	Exclusive Economic Zone
✗ EUTC	European Union Trade Commission
✗ FAD	Fish Aggregation Device
✗ FAO	[The United Nations] Food and Agriculture Organisation
✗ FFA	Pacific Islands Forum Fisheries Agency
✗ FFV	Foreign Fishing Vessel
✗ FOC	Flags of Convenience
✗ GFCM	General Fisheries Commission for the Mediterranean
✗ IATTC	Inter-American Tropical Tuna Commission
✗ ICCAT	International Commission for the Conservation of Atlantic Tuna
✗ ICFA	International Coalition of Fisheries Associations
✗ IFQ	Individual Fishing Quotas
✗ ILO	International Labour Organisation
✗ IMO	International Maritime Organisation
✗ INPFC	International North Pacific Fisheries Commission
✗ IOFC	Indian Ocean Fishery Commission
✗ IOTC	Indian Ocean Tuna Commission
✗ IPOA	International Plan of Action
✗ IPOA-MFC	International Plan of Action for the management of Fishing Capacity
✗ IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated and Unreported Fishing
✗ ITQs	Individual Transferable Quotas
✗ ITLOS	International Tribunal for the Law of the Sea
✗ IUU	Illegal, Unregulated and Unreported Fishing
✗ LOSC	United Nations Convention on the Law of the Sea (10 December 1982)

✗	MCS	Monitoring, Control and Surveillance
✗	MSY	Maximum Sustainable Yield
✗	NAFO	Northwest Atlantic Fisheries Organisation
✗	NPAFC	North Pacific Anadromous Fish Commission
✗	PIFFC	Pacific Islands Forum Fisheries Committee
✗	PSM	Port State Measures
✗	PSMA	Port State Measures Agreement (23 November 2009)
✗	RFB	Regional Fisheries Body
✗	RFMO	Regional Fisheries Management Organisation
✗	RFO	Regional Fisheries Organisations
✗	SEAFO	South East Atlantic Fisheries Organisation
✗	SPRFMO	South Pacific Regional Fisheries Management Organisation
✗	TAC	Total Allowable Catch
✗	UNCED	United Nations Conference on Environment and Development (June 1992)
✗	UNCLOS	United Nations Convention on the Law of the Sea (10 December 1982)
✗	UNFSA	United Nations Fish Stocks Agreement (4 December 1995)
✗	VMS	Vessel Monitoring System
✗	WCPFC	Western and Central Pacific Fisheries Commission
✗	WECAFC	Western Central Atlantic Fishery Commission

ANNEX I – UNCLOS ARTICLES THAT PERTAIN TO FISHING ON THE HIGH SEAS⁴⁶⁹

PART V EXCLUSIVE ECONOMIC ZONE

Article 55 Specific legal regime of the exclusive economic zone

The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention.

Article 56 Rights, jurisdiction and duties of the Coastal State in the exclusive economic zone

1. *In the exclusive economic zone, the coastal State has:*
 - (a) *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*
 - (b) *production of energy from the water, currents and winds; jurisdiction as provided for in the relevant provisions of this Convention with regard to:*
 - (i) *the establishment and use of artificial islands, installations and structures;*
 - (ii) *marine scientific research;*
 - (iii) *the protection and preservation of the marine environment;*
 - (c) *other rights and duties provided for in this Convention.*
2. *In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.*
3. *The rights set out in this article with respect to the seabed and subsoil shall be exercised in accordance with Part VI.*

Article 57 Breadth of the exclusive economic zone

The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Article 58 Rights and duties of other States in the exclusive economic zone

1. *In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.*
2. *Articles 88 to 115 and other pertinent rules of international law apply to the exclusive economic zone in so far as they are not incompatible with this Part.*
3. *In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the*

⁴⁶⁹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982).

provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.

Article 62 Utilization of the living resources

1. *The coastal State shall promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to article 61.*
2. *The 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.*
3. *In giving access to other States to its exclusive economic zone under this article, the coastal State shall take into account all relevant factors, including, inter alia, the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests, the provisions of articles 69 and 70, the requirements of developing States in the subregion or region in harvesting part of the surplus and the need to minimize economic dislocation in States whose nationals have habitually fished in the zone or which have made substantial efforts in research and identification of stocks.*
4. *Nationals of other States fishing in the exclusive economic zone shall comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State. These laws and regulations shall be consistent with this Convention and may relate, inter alia, to the following:*
 - (a) *licensing of fishermen, fishing vessels and equipment, including payment of fees and other forms of remuneration which, in the case of developing coastal States, may consist of adequate compensation in the field of financing, equipment and technology relating to the fishing industry;*
 - (b) *determining the species which may be caught, and fixing quotas of catch, whether in relation to particular stocks or groups of stocks or catch per vessel over a period of time or to the catch by nationals of any State during a specified period;*
 - (c) *regulating seasons and areas of fishing, the types, sizes and amount of gear, and the types, sizes and number of fishing vessels that may be used;*
 - (d) *fixing the age and size of fish and other species that may be caught;*
 - (e) *specifying information required of fishing vessels, including catch and effort statistics and vessel position reports;*
 - (f) *requiring, under the authorization and control of the coastal State, the conduct of specified fisheries research programmes and regulating the conduct of such research, including the sampling of catches, disposition of samples and reporting of associated scientific data;*
 - (g) *the placing of observers or trainees on board such vessels by the coastal State;*
 - (h) *the landing of all or any part of the catch by such vessels in the ports of the coastal State;*
 - (i) *terms and conditions relating to joint ventures or other cooperative arrangements;*
 - (j) *requirements for the training of personnel and the transfer of fisheries technology, including enhancement of the coastal State's capability of undertaking fisheries research;*
 - (k) *enforcement procedures.*
5. *Coastal States shall give due notice of conservation and management laws and regulations.*

Article 63 Stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it

1. *Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate **subregional or regional organizations**, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.*
2. *Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the 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.*

Article 64 Highly migratory species

1. *The coastal State and other States whose nationals fish in the region for the highly migratory species listed in Annex I shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall cooperate to establish such an organization and participate in its work.*
2. *The provisions of paragraph 1 apply in addition to the other provisions of this Part.*

Article 65 Marine mammals

Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

Article 66 Anadromous stocks

1. *States in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks.*
2. *The State of origin of anadromous stocks shall ensure their conservation by the establishment of appropriate regulatory measures for fishing in all waters landward of the outer limits of its exclusive economic zone and for fishing provided for in paragraph 3(b). The State of origin may, after consultations with the other States referred to in paragraphs 3 and 4 fishing these stocks, establish total allowable catches for stocks originating in its rivers.*
3. *Fisheries for anadromous stocks*
 - (a) *shall be conducted only in waters landward of the outer limits of exclusive economic zones, except in cases where this provision would result in economic dislocation for a State other than the State of origin. With respect to such fishing beyond the outer limits of the exclusive economic zone, States concerned shall maintain consultations with a view*

to achieving agreement on terms and conditions of such fishing giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks.

- (b) The State of origin shall cooperate in minimizing economic dislocation in such other States fishing these stocks, taking into account the normal catch and the mode of operations of such States, and all the areas in which such fishing has occurred.*
 - (c) States referred to in subparagraph (b), participating by agreement with the State of origin in measures to renew anadromous stocks, particularly by expenditures for that purpose, shall be given special consideration by the State of origin in the harvesting of stocks originating in its rivers.*
 - (d) Enforcement of regulations regarding anadromous stocks beyond the exclusive economic zone shall be by agreement between the State of origin and the other States concerned.*
- 4. In cases where anadromous stocks migrate into or through the waters landward of the outer limits of the exclusive economic zone of a State other than the State of origin, such State shall cooperate with the State of origin with regard to the conservation and management of such stocks.*
 - 5. The State of origin of anadromous stocks and other States fishing these stocks shall make arrangements for the implementation of the provisions of this article, where appropriate, through regional organizations.*

Article 67 Catadromous species

- 1. A coastal State in whose waters catadromous species spend the greater part of their life cycle shall have responsibility for the management of these species and shall ensure the ingress and egress of migrating fish.*
- 2. Harvesting of catadromous species shall be conducted only in waters landward of the outer limits of exclusive economic zones. When conducted in exclusive economic zones, harvesting shall be subject to this article and the other provisions of this Convention concerning fishing in these zones.*
- 3. In cases where catadromous fish migrate through the exclusive economic zone of another State, whether as juvenile or maturing fish, the management, including harvesting, of such fish shall be regulated by agreement between the State mentioned in paragraph 1 and the other State concerned. Such agreement shall ensure the rational management of the species and take into account the responsibilities of the State mentioned in paragraph 1 for the maintenance of these species.*

Article 68 Sedentary species

This Part does not apply to sedentary species as defined in article 77, paragraph 4.

Article 73 Enforcement of laws and regulations of the coastal State

- 1. The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.*
- 2. Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.*
- 3. Coastal State penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment.*

4. *In cases of arrest or detention of foreign vessels the coastal State shall promptly notify the flag State, through appropriate channels, of the action taken and of any penalties subsequently imposed.*

PART VII HIGH SEAS

SECTION 1. GENERAL PROVISIONS

Article 86 Application of the provisions of this Part

The provisions of this Part apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State. This article does not entail any abridgement of the freedoms enjoyed by all States in the exclusive economic zone in accordance with article 58.

Article 87 - Freedom of the high seas

1. *The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, inter alia, both for coastal and land-locked States:*
 - (a) **freedom of navigation;***
 - (b) freedom of overflight;*
 - (c) freedom to lay submarine cables and pipelines, subject to Part VI;*
 - (d) freedom to construct artificial islands and other installations permitted under international law, subject to Part VI;*
 - (e) **freedom of fishing;** subject to the conditions laid down in section 2;*
 - (f) freedom of scientific research, subject to Parts VI and XIII.*
2. *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.*

Article 88 Reservation of the high seas for peaceful purposes

The high seas shall be reserved for peaceful purposes.

Article 89 Invalidity of claims of sovereignty over the high seas

No State may validly purport to subject any part of the high seas to its sovereignty.

Article 90 Right of navigation

Every State, whether coastal or land-locked, has the right to sail ships flying its flag on the high seas.

Article 91 Nationality of ships

1. *Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. **There must exist a genuine link between the State and the ship.***
2. *Every State shall issue to ships to which it has granted the right to fly its flag documents to that effect.*

Article 92 - Status of ships

1. *Ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas. A ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry*
2. *A ship which sails under the flags of two or more States, using them according to convenience, may not claim any of the nationalities in question with respect to any other State, and may be assimilated to a ship without nationality.*

Article 94 - Duties of the flag State

1. *Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.*
2. *In particular every State shall:*
 - (a) *maintain a register of ships containing the names and particulars of ships flying its flag, except those which are excluded from generally accepted international regulations on account of their small size; and*
 - (b) *assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.*
3. *Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to:*
 - (a) *the construction, equipment and seaworthiness of ships;*
 - (b) *the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;*
 - (c) *the use of signals, the maintenance of communications and the prevention of collisions.*
4. *Such measures shall include those necessary to ensure:*
 - (a) *that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;*
 - (b) *that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship;*
 - (c) *that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio.*
5. *In taking the measures called for in paragraphs 3 and 4 each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance.*
6. *A State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.*

7. *Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. The flag State and the other State shall cooperate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.*

Article 110 Right of visit

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

Article 111 Right of hot pursuit

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

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

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

Article 116 - Right to fish on the high seas

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

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

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

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

Article 118 - Cooperation of States in the conservation and management of living resources

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 sub-regional or regional fisheries organizations to this end.

Article 119 - Conservation of the living resources of the high seas

1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:

(a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

(b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

2. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

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

Article 120 Marine mammals

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

Article 197 Cooperation on a global or regional basis

States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

Article 309 Reservations and exceptions

No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention.

Article 310 Declarations and statements

Article 309 does not preclude a State, when signing, ratifying or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, inter alia, to the

harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effect of the provisions of this Convention in their application to that State.

Article 311 Relation to other conventions and international agreements

- 1. This Convention shall prevail, as between States Parties, over the Geneva Conventions on the Law of the Sea of 29 April 1958.*
- 2. This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.*
- 3. Two or more States Parties may conclude agreements modifying or suspending the operation of provisions of this Convention, applicable **solely to the relations between them**, provided that such agreements do not relate to a provision derogation from which is incompatible with the effective execution of the object and purpose of this Convention, and provided further that such agreements shall not affect the application of the basic principles embodied herein, and that the provisions of such agreements do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.*
- 4. States Parties intending to conclude an agreement referred to in paragraph 3 shall notify the other States Parties through the depositary of this Convention of their intention to conclude the agreement and of the modification or suspension for which it provides.*
- 5. This article does not affect international agreements expressly permitted or preserved by other articles of this Convention.*
- 6. States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in article 136 and that they shall not be party to any agreement in derogation thereof.*

ANNEX II – LIST OF HIGHLY MIGRATORY SPECIES⁴⁷⁰

1. Albacore tuna: *Thunnus alalunga*.
2. Bluefin tuna: *Thunnus thynnus*.
3. Bigeye tuna: *Thunnus obesus*.
4. Skipjack tuna: *Katsuwonus pelamis*.
5. Yellowfin tuna: *Thunnus albacares*.
6. Blackfin tuna: *Thunnus atlanticus*.
7. Little tuna: *Euthynnus alletteratus*; *Euthynnus affinis*.
8. Southern bluefin tuna: *Thunnus maccoyii*.
9. Frigate mackerel: *Auxis thazard*; *Auxis rochei*.
10. Pomfrets: Family *Bramidae*.
11. Marlins: *Tetrapturus angustirostris*; *Tetrapturus belone*; *Tetrapturus pfluegeri*; *Tetrapturus albidus*; *Tetrapturus audax*; *Tetrapturus georgei*; *Makaira mazara*; *Makaira indica*; *Makaira nigricans*.
12. Sail-fishes: *Istiophorus platypterus*; *Istiophorus albicans*.
13. Swordfish: *Xiphias gladius*.
14. Sauries: *Scomberesox saurus*; *Cololabis saira*; *Cololabis adocetus*; *Scomberesox saurus scombroides*.
15. Dolphin: *Coryphaena hippurus*; *Coryphaena equiselis*.
16. Oceanic sharks: *Hexanchus griseus*; *Cetorhinus maximus*; Family *Alopiidae*; *Rhincodon typus*; Family *Carcharhinidae*; Family *Sphyrnidae*; Family *Isurida*.
17. Cetaceans: Family *Physeteridae*; Family *Balaenopteridae*; Family *Balaenidae*; Family *Eschrichtiidae*; Family *Monodontidae*; Family *Ziphiidae*; Family *Delphinidae*.

⁴⁷⁰ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, 1833 UNTS 396; 21 I.L.M. 1245 (1982), Annex I.