



Navigating Pacific Fisheries

Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region

Edited by
Quentin Hanich and Martin Tsamenyi

Navigating Pacific Fisheries

**Legal and Policy Trends in the Implementation of International
Fisheries Instruments in the Western and Central Pacific Region**

**Edited by
Quentin Hanich and Martin Tsamenyi**

Ocean Publications
Australian National Centre for Ocean Resources and Security (ANCORS)
University of Wollongong

Series Editor: Martin Tsamenyi

Oceans Publications is an imprint of the Australian National Centre for Ocean Resources and Security (ANCORS). Consisting of new and significant refereed research, the Oceans Publications series reflects the Centre's multi-disciplinary research programme, which is both extensive and inclusive of most policy issues related to the sea. The Centre's current priority areas for research and publication include ocean policy and management, ocean governance and law, fisheries policy and marine environmental management, and maritime strategy and security.

“... we live in a system of sovereign States jealous of their powers. This is quite basic, even though the system itself is obsolescent.”

Arvid Pardo, 1993.

Published in 2009
Oceans Publications
Australian National Centre for Ocean Resources and Security (ANCORS)
University of Wollongong
Wollongong - NSW - 2522 - Australia

© University of Wollongong and respective authors

This book is copyright. Apart from any fair dealing for the purpose of private study, research criticism, or review as permitted under the Copyright Act, no part may be reproduced by any process without written permission of the author. Inquiries should be directed to the Australian National Centre for Ocean Resources and Security (ANCORS).

Formatted and copy edited by Jacinda Forster and Lowell Batista
Cover design by Gerard Toomey
Cover photograph by Quentin Hanich
Printed by University of Wollongong Printery

National Library of Australia
Catalogue-in-publication entry:
Navigating Pacific Fisheries: Legal and Policy Trends in the Implementation of
International Fisheries Instruments in the Western and Central Pacific Ocean

Subjects:
Fishery law and legislation -- Pacific Ocean;
Fishery management -- Pacific Ocean;
Fisheries -- International cooperation.

Dewey number: 341.7622

ISBN: 978-1-74128-176-7 (paperback)
ISBN: 978-1-74128-177-4 (ebook)

Contents

Preface: <i>Su'a N. F. Tanielu</i>	7
Glossary	8
Contributors	11
Introduction: <i>Quentin Hanich and Martin Tsamenyi</i>	15
Part One: Impacts of Global Trends in the Western and Central Pacific Region	19
1. Oceans of Opportunity? The Limits of Maritime Claims in the Western and Central Pacific Region <i>Quentin Hanich, Clive Schofield and Peter Cozens</i>	21
2. Fisheries Subsidies Negotiations under the WTO and Likely Policy Implications for the Pacific Island Countries <i>Vina Ram-Bidesi</i>	51
3. Combating IUU Fishing: International Legal Developments <i>Mary Ann Palma</i>	71
4. The FAO Global Record of Fishing Vessels: Issues for Pacific Island States and the Pacific Islands Forum Fisheries Agency <i>Gail Lugten</i>	104
5. Lessons from the Toolbox ~ Using Vessel Monitoring System Data in Enforcement Proceedings <i>Alexa A. Cole</i>	126
6. Fisheries Dispute Settlement under the Law of the Sea Convention: Current Practice in the Western and Central Pacific Region <i>Martin Tsamenyi, Ben Milligan and Kwame Mfodwo</i>	146
7. Partners or Adversaries? The Role of NGOs in the Implementation of International Fisheries Instruments <i>Pio E. Manoa</i>	163

Part Two: Impacts of Regional Trends in the Western and Central Pacific Region	185
8. Status of Tuna Stocks in the Western and Central Pacific Ocean and Scientific Challenges <i>Shelton Harley and John Hampton</i>	187
9. The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean: Implementation Challenges from a Historical Perspective <i>Sandra Tarte</i>	204
10. Control, Cooperation and ‘Participatory Rights’ in the Western and Central Pacific Ocean Tuna Fisheries <i>Quentin Hanich</i>	221
11. Allocation Models in the Western and Central Pacific Fisheries Commission and Implications for Pacific Island States <i>Hannah Parris and Alex Lee</i>	250
12. Implementation of the Precautionary Approach and Reference Points <i>Les Clark</i>	284
13. Ecosystem Approach to Fisheries Management: Implementation Issues and Challenges for the Pacific Island States <i>Samasoni Sauni</i>	302
14. Legislative Guidelines for Sustainable Fisheries: Some Future Directions for the Development of Fisheries Legislation in the Pacific Islands <i>William Edeson</i>	319

Preface

Management of the Western and Central Pacific tuna fisheries depends ultimately on effective cooperation and strong conservation and management frameworks. In response, Pacific island States have developed a cooperative approach to fisheries management that has set global precedents and significantly boosted their capacity to manage the region's tuna fisheries and progress their national interests. The Pacific Islands Forum Fisheries Agency (FFA) and the Secretariat of the Pacific Community (SPC) provide high quality technical advice and support while the Harmonised Minimum Terms and Conditions of Access for Foreign Fishing Vessels (HMTCs), the Vessel Day Scheme (VDS), the FFA Vessel Monitoring Scheme (VMS) and the Niue Treaty support collective management, enforcement and exploitation of much of the region's migratory fisheries. Furthermore, the collective will of the Pacific island States was critical to the establishment of the Western and Central Pacific Fisheries Commission (WCPFC) within which the Pacific island States are a critical membership bloc and play an important role.

Recent increases in fishing effort and overfishing of some tuna stocks present immediate challenges to the region and its distant water fishing partners to build on this strong history of cooperation and negotiate and implement strong conservation and management measures. These challenges raise a number of complex legal and policy questions.

In April 2008, the FFA hosted a regional conference that explored the legal and policy trends in the implementation of international fisheries instruments in the Western and Central Pacific region. Legal and policy officers from FFA member countries participated in the conference alongside a number of experts who prepared papers on their various relevant areas of expertise. The Conference was an FFA activity of the Global Environment Facility funded Pacific Islands Oceanic Fisheries Management Project.

Subsequently, the FFA commissioned this book to further explore these legal and policy trends. It is with pleasure that I invite readers to consider the complex legal and policy matters critically assessed within this book and their application to the daily tasks of managing and developing our region's valuable tuna fisheries.



Su'a N.F. Tanielu – Director General
Pacific Islands Forum Fisheries Agency (FFA)
September 2009

Glossary

ACP	African, Caribbean and Pacific Group of States
ACP-EU	African, Caribbean and Pacific Group of States - European Union
AFMA	Australian Fisheries Management Authority
AIDCP	Agreement on the International Dolphin Conservation Program
ALJ	Administrative Law Judge
ANCORS	Australian National Centre for Ocean Resources and Security
ASCM	Agreement on Subsidies and Countervailing Measures
ASDA	Asquith and Dairies
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDS	Catch Documentation Scheme
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLCS	Commission on the Limits of the Continental Shelf
CMM	Conservation and Management Measure
CNM	Cooperating Non-Member
COFI	FAO Committee of Fisheries
COLTO	Coalition of Legal Toothfish Operators
CP	Contracting Parties
CTE	WTO Committee on Trade and Environment
DCD	<i>Dissostichus</i> Catch Document
DOALOS	United Nations Division for Ocean Affairs and the Law of the Sea
DWFN	Distant Water Fishing Nation
EAF	Ecosystem Approach to Fisheries
EAFM	Ecosystem Approach to Fisheries Management
EC	European Commission
EEZ	Exclusive Economic Zone
ENSO	El Nino Southern Oscillation
EU	European Union
FAD	Fish Aggregating Devices
FAO	Food and Agriculture Organisation of the United Nations
FAO Code of Conduct	FAO Code of Conduct for Responsible Fisheries
FFA	Pacific Islands Forum Fisheries Agency
FFC	Forum Fisheries Committee
FRE	Federal Rules of Evidence
FSI	Fish Sustainability Initiative
FSM	Federated States of Micronesia
FSMA	Federated States of Micronesia Arrangement

GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Graphic Information System
GPS	Global Positioning System
GT	Gross Tons
HSVAR	High Seas Vessel Authorization Record
HSDFMPA	High Seas Driftnet Fishing Moratorium Protection Act
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tuna
ICJ	International Court of Justice
IGFA	International Game Fish Association
IOTC	Indian Ocean Tuna Commission
IPOA	International Plan of Action
IPOA-IUU	International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing
ISOFISH	International Southern Oceans Longline Fisheries Information Clearing House
ITLOS	International Tribunal for the Law of the Sea
IUU	Illegal, Unreported and Unregulated Fishing
LDC	Least-Developed Countries
LOSC	1982 United Nations Convention on the Law of the Sea
LVFO	Lake Victoria Fisheries Organisation
MCS	Monitoring, Control and Surveillance
MEY	Maximum Economic Yield
MFCL	Multifan-CL Model
MHLC	Multilateral High Level Conference on South Pacific Tuna Fisheries
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MRAG	Marine Resources Assessment Group
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
MT	Metric Tons
MTC	Minimum Terms and Conditions
NAFO	Northwest Atlantic Fisheries Organisation
NCP	Non-Contracting Parties
NEAFC	Northeast Atlantic Fisheries Commission
NGO	Non-Government Organisation
NM	Nautical Mile
NOAA	National Oceanic and Atmospheric Administration
NPOA	National Plan of Action
OECD	Organisation of Economic Co-operation and Development
OFF-SPC	Oceanic Fisheries Programme of the Secretariat for the Pacific Community
OPRT	Organisation for the Promotion of Responsible Tuna Fisheries
PIC	Pacific Islands Countries

PICTs	Pacific Island Countries and Territories
PIROP	Pacific Islands Regional Oceans Policy
PITIA	Pacific Islands Tuna Industry Association
PSC	Port State Control
PNA	Parties to the Nauru Agreement
RFMO	Regional Fisheries Management Organisation
RPOA	Regional Plan of Action
S&DT	Special and Differential Treatment
SADC	Southern African Development Community
SC-WCPFC	Scientific Committee of the Western and Central Pacific Fisheries Commission
SEAFO	South East Atlantic Fisheries Organization
SIDS	Small Island Developing States
SOPAC	Oceans and Islands Programme of the South Pacific Applied Geoscience Commission
SPC	Secretariat of the Pacific Community
SPC-OFP	Secretariat of the Pacific Community – Oceanic Fisheries Programme
SVE	Small Vulnerable Economies
TAC	Total Allowable Catch
TAE	Total Allowable Effort
TCC	Technical and Compliance Committee
TUFMAN	Tuna Fishery Data Management System
UNCED	United Nations Conference on Environment and Development
UNCLOS III	Third United Nations Conference on the Law of the Sea
UNFSA	United Nations Fish Stocks Agreement
UNEP	United Nations Environmental Program
US	United States of America
USMLT	United States Multilateral Treaty
VDS	Vessel Day Scheme
Vienna	
Convention	1969 Vienna Convention on the Law of Treaties
VMS	Vessel Monitoring System
WCPF	
Convention	Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation
WTO	
Agreement	WTO Agreement on Subsidies and Countervailing Measures
WTPO	World Tuna Purse Seine Organisation
WWF	World Wildlife Fund
WWF-SPP	World Wildlife Fund for Nature South Pacific Programme

Contributors

Les Clark

Les Clark is a partner in Ray Research with his wife Sangaa, providing consultancy services in a wide range of fisheries management and development aspects, largely now in the Pacific Islands region. Currently, the focus of their work is in the provision of advice and training to the Secretariat of the Pacific Islands Forum Fisheries Agency and its individual Pacific Island members. Mr Clark has had extensive involvement in the establishment and early period of operation of the Western and Central Pacific Fisheries Commission, which is the origin of the issues addressed in the paper.

Alexa A. Cole

Alexa A. Cole is the Senior Enforcement Attorney, Pacific Islands Region in the National Oceanic and Atmospheric Administration's Office of General Counsel for Enforcement and Litigation based in Honolulu, Hawaii. Alexa is responsible for prosecuting all civil administrative and forfeiture cases for NOAA in the region. She is also designated as a Special Assistant U.S. Attorney for the District of Hawaii to handle NOAA's criminal prosecutions in the region. In addition, Alexa works on international enforcement issues for the region particularly involving the Western and Central Pacific Fisheries Commission and the South Pacific Tuna Treaty.

Peter Cozens

Peter Cozens is the Director of the Centre for Strategic Studies: New Zealand and the Executive Director of the CSCAP-New Zealand National Council. He has an extensive maritime background having enjoyed careers at sea with the British India Steam Navigation Company Limited and also with the Royal New Zealand Navy. Within the discipline of Economic History his research interests include maritime strategy, oceans policy and governance, the Law of the Sea Convention, Chinese and Indian maritime development, and maritime history. He is a graduate of Victoria University of Wellington (BA(Hons) in History and MA in Economics) and the Royal Australian Naval Staff College.

William Edeson

From 1988 until 2003, William Edeson was Senior Legal Officer, Legal Office FAO Rome, where he worked, *inter alia*, on the Code of Conduct for Responsible Fisheries, and the International Plan of Action to Prevent, Deter, and Eliminate Illegal Unreported and Unregulated Fishing (IPOA-IUU). Prior to that, he was Reader in Law at the Australian National University (ANU) Law Faculty in Canberra, where he taught Law of the Sea, International Organizations Law, Administrative law and Principles of Constitutional Law. He has worked on fisheries legislation in a number of different countries

(mainly, Bangladesh, St Lucia, Trinidad and Tobago, Tonga, Samoa, Malaysia, Cook Islands, Guyana, Papua New Guinea, Republic of South Africa, Namibia, Vietnam, and a draft regional law for the island States of the Caribbean on the implementation of the 1995 UN Fish Stocks Agreement and the FAO Compliance Agreement) and with some regional fisheries bodies outside the FAO context. He has written extensively on fisheries law issues.

John Hampton

Dr John Hampton is currently the Manager of the Oceanic Fisheries Programme within the Secretariat of the Pacific Community (SPC). He has worked in various roles within SPC since 1987. In recent years Dr Hampton has authored and co-authored papers in leading scientific journals providing the best available science of the status of Pacific tuna stocks.

Quentin Hanich

Quentin Hanich is a Senior Research Fellow at ANCORS which he joined in early 2005. Mr Hanich works throughout the Asia Pacific region on research consultancies and projects relating to oceans governance; international fisheries management; marine conservation; development and governance; and fisheries monitoring, control and surveillance. He has coordinated and led research projects for various international fora (including the Pacific Islands Forum Fisheries Agency), government agencies, non-government organisations and industry. Most recently, Mr Hanich coordinated and lead-authored the Compliance Review component of the FFA analytical studies to support the development of a Regional MCS Strategy for the Pacific islands Region. He has also worked on a number of research projects relating to the Western and Central Pacific Fisheries Commission, the Regional Plan of Action to Promote Responsible Fishing Practices in the South East Asian Region, and various other international fisheries and environmental fora.

Shelton Harley

Dr Shelton Harley is currently the Section Head for the Stock Assessment and Modelling Section within the Oceanic Fisheries Programme. Dr Harley began with SPC in 2008 and previously has worked on eastern Pacific tuna issues with the Inter-American Tropical Tuna Commission and was most recently New Zealand's science representative on the WCPFC Scientific Committee.

Alex Lee

Dr Alex C. Lee received his M.Sc. degree in 1997 (with first class honors) in geography (specialising in Geographic Information Systems (GIS) and natural resource management) from the University of Auckland, New Zealand. From 1999 to 2003 he worked at the Bureau of Rural Sciences (Australia), to apply GIS and remote sensing techniques to enhance national forest policy. From 2003 to 2008 he undertook PhD studies at the Australian National University (ANU) in Canberra where he developed algorithms for the utilization of small footprint airborne scanning laser (LiDAR) data for forest

structure and biomass assessment in Australia. Alex has co-authored a number of papers published in international remote sensing journals. He currently works within geomatics at the Department of Defence.

Gail Lugten

Dr Gail Lugten is a senior lecturer at the University of Tasmania. She specialises in the international law of the sea and the law of marine capture fisheries. She has published extensively in texts and international marine journals and has been the recipient of Australian research council grant funding. She has been a legal consultant on international fisheries law to domestic and international organisations.

Pio Manoa

Pio E. Manoa is currently with the legal division of the Pacific Islands Forum Fisheries Agency (FFA). Before commencing with the FFA he was employed as a lecturer in ocean law and policy at the University of the South Pacific. In his current role, he provides legal advice and assistance to FFA members in national, regional and international fora.

Kwame Mfodwo

Kwame is a Lecturer at Monash University Law School and has taught at the University of Waikato, Hamilton, New Zealand; the University of Tasmania; the Australian National University; the University of Canberra, the University of Papua New Guinea and the University of Ghana. Kwame has provided training and advice to a range of organisations including the South Pacific Forum, Forum Fisheries Agency, and government departments in Australia, New Zealand and Ghana. He is widely published in the fields of environmental law, fisheries law, law of the sea and international law.

Ben Milligan

Ben is a PhD candidate at the Australian National Centre for Ocean Resources and Security, University of Wollongong and a Visiting Fellow at the Lauterpacht Centre for International Law, University of Cambridge. He has provided consultancy services to clients including the PEW Charitable Trusts, several Australian Government Ministries and the African, Caribbean and Pacific Group of States. Ben is an author of several publications in the fields of international environmental law, international trade law and the law of the sea.

Hannah Parris

Hannah Parris has recently completed a PhD on regional fisheries governance in the Western and Central Pacific Ocean at the Crawford School of Economics and Government, Australian National University. She has previously worked as a policy advisor and economist to the Australian Government and as a consultant to the Pacific Islands Forum Fisheries Agency and the non-government organisation, TRAFFIC. She is currently employed as economics advisor to Senator Bob Brown.

Vina Ram-Bidesi

Vina Ram-Bidesi is a senior lecturer in Marine Studies at the University of the South Pacific. In 2006-07, she was one of the team members in the FFA project on preparing the trade guidebook on Pacific Island Countries, the global tuna industry and the international trade regime.

Samasoni Sauni

Samasoni currently works for the FFA as Fisheries Management Advisor. Before that he had four years with the SPC as Senior Fisheries Scientist in the EU programme PROCFISH-CARF project. He has research interests and work experiences in fisheries science and management, particularly in areas of tuna and reef fisheries. Past research topics include: effects of coral extraction, coral bleaching and localised MPAs on fish assemblages. Current research areas include: marine area closures, longline fisheries management, and ecosystem fisheries management.

Clive Schofield

Dr Clive Schofield is a QEII Research Fellow and Director of Research at the Australian Centre for Ocean Resource and Security (ANCORS), University of Wollongong, Australia. His research interests encompass the delimitation of international maritime boundaries, related disputes and their resolution and technical aspects of and the law of the sea. He is co-author (with Professor J.R.V. Prescott) of the book, *The Maritime Political Boundaries of the World* (2005).

Sandra Tarte

Sandra Tarte is Associate Professor in the School of Social Sciences, Faculty of Arts and Law, University of the South Pacific. She specializes in the international politics of the Pacific islands region. She is the author of *Japan's Aid Diplomacy and the Pacific Islands* (1998). She has also written widely on regional fisheries diplomacy in the Pacific.

Martin Tsamenyi

Professor Martin Tsamenyi is currently the Director of the Australian National Centre for Ocean Resources & Security (ANCORS) at the University of Wollongong, Australia. Professor Tsamenyi holds a Bachelors of Laws degree from the University of Ghana, Master of International Law and Doctor of Philosophy degrees from the Australian National University. Professor Tsamenyi is a world-recognized expert in international fisheries law and policy and has provided advice to a number of governments, international organizations, non-governmental organizations and the fishing industry on implementation of international fisheries laws and regulations. Professor Tsamenyi previously served as the Fisheries Law Adviser to the Pacific Islands Forum Fisheries Agency and is currently the legal adviser to the Secretariat of the Western and Central Pacific Fisheries Commission.

Introduction

Quentin Hanich and Martin Tsamenyi

This book analyses the legal and policy context for the conservation, management and exploitation of tuna fisheries in the Western and Central Pacific region. This is inherently a highly complicated and convoluted matter due to the trans-boundary nature of the migratory tuna stocks and the diverse number of flag, port and market States involved in the fishery. The book is split into two parts: Part One focuses on the impacts of global legal and policy trends on the conservation and management of the Western and Central Pacific tuna fisheries; Part Two focuses on the impacts of regional legal and policy trends on the conservation and management of the Western and Central Pacific tuna fisheries. Each chapter analyses and explores a key legal or policy issue within the context of the tuna fisheries.

The legal and policy context for these tuna fisheries varies significantly depending upon the location of the catch and the circumstances of the States involved. Some fishing effort occurs within territorial seas and archipelagic waters, some within exclusive economic zones (EEZs) and some on the high seas. Some participating States are party to the United Nations Fish Stocks Agreement (UNFSA) and the Western and Central Pacific Fisheries Commission (WCPFC), while others are not. These matters have significant ramifications for the conservation and management of the Western and Central Pacific tuna fisheries and are analysed and discussed in Chapters One and Ten. Chapter One by Quentin Hanich, Clive Schofield and Peter Cozens analyses maritime claims in the context of Pacific island interests and discusses the benefits of cooperation. Chapter Ten by Quentin Hanich builds on this overview, analyses historical activities to determine States that have participated in the Western and Central Pacific tuna fisheries, and discusses the participatory rights and responsibilities of the various flag States involved in these fisheries.

Unlike Atlantic, Indian and Eastern Pacific tuna fisheries, the majority of fishing effort in the Western and Central Pacific region occurs within the EEZs of the Pacific Island States, Indonesia and the Philippines. Most of this catch is taken by foreign owned vessels from outside the Pacific islands region. These foreign owned vessels may either be based within a Pacific Island State (due to licensing requirements) or operate from a distant home port. These vessels are mostly from distant water fishing nations (DWFN), notably China, Japan, Korea, the United States, Taiwan and increasingly, the European Union, who fish within Pacific Island EEZs or on the high seas. These vessels operate through access agreements or are directly licensed by the coastal States to fish

within their EEZ. The annual value of tuna caught by DWFN vessels is approximately four times that caught by domestic fishing vessels.¹

Domestic fishing vessels are generally smaller vessels that mostly fish for tuna within their own flag State's EEZ. These vessels may be nationally owned and operated, or may be foreign owned and operated through domestic charters and/or joint ventures with local interests. Charter and/or joint venture arrangements generally specify local participation requirements in the venture and require that the vessel be located within the country. Most domestic vessels are longliners, but recently there has been an increase in Pacific Island flagged or domestic-based purse seiners.

Given the lack of resource alternatives, Pacific island States are heavily dependent upon the region's oceanic and coastal fisheries. While coastal fisheries provide important sources of traditional food and income to artisanal communities, the oceanic tuna fisheries are the cornerstone upon which many Pacific island States depend for revenue and economic activity. Access fees from foreign fishing vessels deliver much-needed financial contributions to governments, while domestically-based fishing fleets and support industries pump hard currency into national economies. Fisheries resources have also, to a degree, motivated some distant water fishing nations (DWFNs) to build and maintain relationships throughout the region that include significant aid budgets.

Pacific island States hold strong aspirations to develop their fisheries and increase their benefits from the fisheries. In this light, Chapter Two by Vina Ram-Bidesi analyses ongoing fisheries subsidy negotiations under the World Trade Organisation and likely policy implications for Pacific island States. This includes some discussion on possible approaches that Pacific island States may consider when, or if, discussions on fisheries subsidies resume.

In order for the Pacific region to develop and maximise their benefits from the fisheries, they must be able to effectively control fishing activities. The following three chapters discuss global developments in monitoring and controlling fishing vessels. Chapter Three by Mary Ann Palma explores international developments in combating illegal, unreported and unregulated (IUU) fishing. Chapter Four by Gail Lugten analyses developments towards a FAO Global Record of Fishing Vessels and discusses its potential ramifications for FFA members. Chapter Five by Alexa Cole explores the use of vessel monitoring data in enforcement proceedings.

Until resolved, overfishing and overcapacity will continue to place significant pressure on the region's fisheries and its cooperative frameworks. Addressing

¹ ForSEC. Fisheries. Pacific Plan Regional Analysis Papers. Pacific Islands Forum Secretariat. 2005. Accessed 18 December 2007. http://www.pacificplan.org/tiki-list_file_gallery.php?galleryId=11

these challenges will require strong cooperation between all relevant coastal, port and flag States – from within the FFA memberships and beyond. Given the diverse range of competing national and stakeholder interests, this will create significant negotiation challenges and fertile ground for dispute. In this context, Chapter Six by Martin Tsamenyi, Ben Milligan and Kwame Mfodwo analyses the fisheries dispute settlement provisions of the Convention on the Law of the Sea and explores current practice within the Western and Central Pacific region. Chapter Seven by Pio Manoa discusses the role of non-government organisations in the development and implementation of international fisheries instruments.

The second part of the book focuses specifically on regional issues and begins with a discussion of the status of the key tuna stocks. Shelton Harley and John Hampton establish the regional fisheries context in Chapter Eight and identify some of the key scientific challenges, particularly in regard to: data; research funding; establishment of reference points; and evaluation of conservation and management measures.

Subsequent chapters explore issues relating to regional cooperation and management of the Western and Central Pacific tuna fisheries. In 1979, the independent members of the Pacific Islands Forum (then named the South Pacific Forum) combined their resources and established the Pacific Islands Forum Fisheries Agency (FFA) to promote intra-regional cooperation and harmonisation of fisheries management policies. The mission of the FFA is to support and enable Pacific island States to achieve sustainable fisheries and maximise their social and economic benefits in harmony with the broader environment.² The FFA supports the interests of the Pacific island States through facilitating regional cooperation in their favour and providing technical and policy advice. However, the limited coastal State membership of the FFA inevitably limited its effectiveness. Until recently, fishing effort targeting the same migratory stocks on the high seas and inside the neighbouring waters of Indonesia and the Philippines was essentially unregulated. In the early 1990s, FFA members recognised that a regional fora was required that engaged their DWFN partners and Indonesia and Philippines and enable management of migratory fisheries beyond their EEZs.

The Western and Central Pacific Fisheries Convention (WCPFC Convention) entered into force in July 2004 with the objective of ensuring the long term conservation and sustainable use of WCPO straddling and highly migratory fish stocks in accordance with the 1982 United Nations Convention on the Law of the Sea (LOSC) and UNFSA. The WCPFC Convention established the decision making WCPFC, which meets annually, and a secretariat which is headquartered in the Federated States of Micronesia. Chapter Nine by Sandra

² *Pacific Islands Forum Fisheries Agency Strategic Plan 2005-2020*. Pacific Islands Forum Fisheries Agency (FFA). Honiara. 2005.

Tarte discusses the WCPF Convention and explores some of its key implementation challenges from a historical perspective.

Pacific island States are a critical membership bloc of the WCPFC and were a key driver behind its development. Other WCPFC members include (amongst others) Indonesia, Philippines and the DWFNs: Japan, Korea, China, Taiwan, USA and the European Community. The WCPFC closely follows the framework established by UNFSA and emphasises a precautionary and ecosystem based approach to fisheries management. Chapter Twelve by Les Clark and Chapter Thirteen by Samasoni Sauni explore these management approaches in the context of the WCPFC and implementation by Pacific island States.

A key challenge for the WCPFC relates to how the Commission allocates the benefits of the fishery, and who carries the costs involved in reducing catches to sustainable levels. Chapter Eleven by Hannah Parris and Alex Lee analyses potential allocation models for the WCPO tuna fisheries and their implications for Pacific island States.

Finally, while regional arrangements and institutions are inherently necessary due to the migratory nature of tuna stocks, effective implementation of conservation and management decisions ultimately falls to national governments. The book concludes with a chapter by William Edison on future directions for the development of fisheries legislation in the Pacific islands.

The editors gratefully appreciate the vision of the FFA in supporting this book, and the efforts and expertise of the authors contained within. We welcome readers and hope that this book will contribute to the sustainable management of the WCPO tuna fisheries through its insights into the legal and policy context within which the fishery is managed.

Part One

Impacts of Global Trends in the Western and Central Pacific Region

1. Oceans of Opportunity? The Limits of Maritime Claims in the Western and Central Pacific Region

Quentin Hanich, Clive Schofield and Peter Cozens

Introduction

The South Pacific region hosts twelve independent States (Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu), two freely associated with New Zealand (Cook Islands and Niue) and another dependent on New Zealand (Tokelau). Together these countries, and Australia and New Zealand, comprise the Pacific Islands Forum. Additionally, there are a number of territories dependent on or in free association with extra-regional metropolitan powers such as France (French Polynesia, New Caledonia, Wallis and Futuna) the United Kingdom (Pitcairn Islands) and the United States (American Samoa, Guam and Northern Mariana Islands).¹ The Pacific island States are predominantly remote both from one another and their metropolitan Pacific Rim neighbours.²

Taken altogether, the Pacific island States total just over 550,000km² of land (84 per cent of which is provided by Papua New Guinea) scattered over the vast 165 million km² Pacific Ocean which encompasses around one third of the surface of the earth.³ An alternative way of conceptualising this vast space is to imagine a region larger in area than China and Central Asia combined, but inhabited by only approximately 10 million people (see Figure 1).⁴

¹ See Tsamenyi, B.M. and Manarangi-Trott, L. "The Role of Regional Organizations in Meeting LOS Convention Challenges: The Western and Central Pacific Experience" in Elferink, A.G.O. and Rothwell, D.R. (eds) *Oceans Management in the 21st Century: Institutional Frameworks and Responses*, The Hague, Kluwer, 2004, pp. 187-208; and Van Dyke, J.M. "Regionalism, Fisheries and Environmental Challenges in the Pacific" in *San Diego International Law Journal*, Vol. 6, No. 1, 2004, 143-178, at 146-158.

² The term "Pacific island States" is used in this chapter to refer to the independent, freely-associated and dependent States and territories of the South Pacific region.

³ Anthony, J.M. "Conflict Over Natural Resources in the Pacific" in Ghee, L.T. and Valencia, M.J. (eds) *Conflict Over Natural Resources in Southeast Asia and the Pacific*, Oxford University Press, Oxford, United Nations University Press, 1990; and Tsamenyi and Manarangi-Trott, 2004, pp. 187-189.

⁴ Cozens, P. "Pacific Islands Security: Emerging Issues and Concerns" Paper presented at the Asia-Pacific Roundtable, Kuala Lumpur, 7 June 2007.

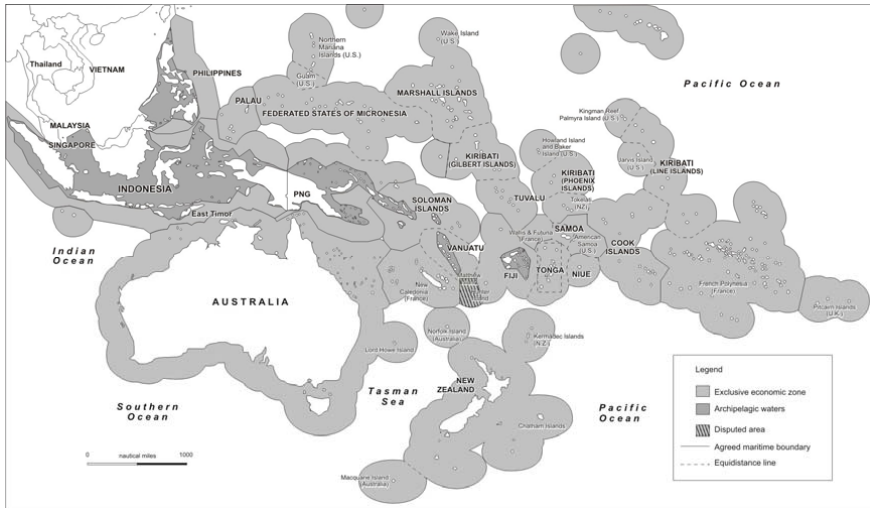


Figure 1: Maritime Claims in the Western and Central Pacific Ocean⁵

This very isolation and remoteness has afforded the Pacific island States enormous maritime opportunities with claims to jurisdiction over an estimated area of 30,569,000km², equivalent to around 28 per cent of exclusive economic zone (EEZ) claims worldwide.⁶ These extensive maritime claims have been facilitated by the introduction of the EEZ out to 200 nautical miles (nm).⁷ Additionally, a number of Pacific island States are in a position to assert rights over substantial areas of continental shelf extending beyond their 200nm limits. These maritime jurisdictional zones are of tremendous actual and potential benefit in terms of access to offshore resources, especially tuna, the exploitation of which remains crucial to the economies of many Pacific island States.

Despite this extensive maritime wealth, Pacific island States have not, thus far, fully realised the anticipated economic benefits from their maritime claims. In practice, Pacific island States have experienced great difficulties in securing recognition for, and deriving significant benefits from, their claimed maritime sovereign rights.

⁵ While every effort has been made to accurately represent the maritime jurisdictional claims and boundaries of the States located in the Western and Central Pacific region, the map shows theoretical equidistance lines and should be regarded as no more than an illustrative sketch map. With thanks to Andi Arsana

⁶ Gillet, R. "Pacific Island Countries Region" in *Review of the State of World Marine Resources*, FAO Fisheries Technical Paper 457, FAO, Rome, 2005, pp. 144-157.

⁷ It is acknowledged that technically the correct abbreviation for a nautical mile is "M" and that "nm" should only be used for nanometres. However, "nm" is widely used by many authorities (for example the UN Office of Ocean Affairs and the Law of the Sea) and appears to cause less confusion than "M", which is often assumed to be an abbreviation for metres. Regarding the breadth of the EEZ, Article 57 of LOSC provides that: "The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured." As most coastal States claim a 12nm territorial sea the actual breadth of the EEZ is usually 188nm seaward of territorial sea limits.

Additionally, the predominantly small island States that comprise the region face a range of serious economic, developmental, environmental and security challenges. These problems are partly a consequence of their limited national administrative, institutional and governance capacity, compounded by external power competition in the region coupled with their geographically remote location. Taken together these factors threaten their stability.⁸

This chapter examines the legal and policy issues associated with maritime opportunities and challenges arising from maritime claims and competing maritime interests in the South Pacific region. The chapter concludes by pointing to some of the ways in which these opportunities are being realised and challenges addressed.

Oceans of Opportunity?

The United Nations Convention on the Law of the Sea (LOSC) of 1982⁹ provides the fundamental ‘constitution for the oceans,’¹⁰ and articulates the rights and responsibilities that coastal States have over their adjacent waters. The LOSC enables coastal States to claim sovereignty and sovereign rights over various maritime resources within territorial seas out to 12nm offshore measured from a coastal State’s baselines, archipelagic waters within duly designated archipelagic baselines, and EEZs out to 200nm.¹¹ The LOSC also amended the rules relating to the fixing of the outer limits of the pre-existing continental shelf regime, which may extend beyond the 200nm limit, where the continental margin extends that far offshore (see below).

⁸ See, for example, the contributions to Cozens, P. and Mossop, J. (eds) *Engaging Oceania with Pacific Asia*, Wellington, Centre for Strategic Studies, New Zealand, 2004.

⁹ United Nations, *United Nations Conventions on the Law of the Sea*, Publication No. E97.V10. United Nations, New York, 1983. Available at:

<http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm>

(hereafter “LOSC”). It is recognised that this treaty goes by a number of different acronyms, “LOSC” (as above), “UNCLOS” (United Nations Convention on the Law of the Sea) or, by its opponents, “LOST” (Law of the Sea Treaty). LOSC is preferred to UNCLOS in order to forestall confusion with the three United Nations Conferences on the Law of the Sea of 1958 (which itself resulted in four Conventions), 1960 and 1974-1982 (resulting in LOSC).

¹⁰ Statement from Ambassador Tommy T.B. Koh of Singapore, a President of the Third United Nations Conference on the Law of the Sea, at the final session of the Conference at Montego Bay, Jamaica, on 11 December 1982. Further elaborated in Koh, T. T. B. ‘A Constitution for the Oceans’ in Nordquist, M. H. (ed) *United Nations Convention on the Law of the Sea 1982: A Commentary*, Nordrecht, Martinus Nijhoff Publishers, 1, 1985.

¹¹ A coastal State’s “normal” baselines will consist of “the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.” (LOSC – Article 5). Under certain circumstances a variety of straight line types of baselines may be defined along the coast, notably straight baselines, river and bay closing lines, as well as closing lines for ports and roadsteads (see LOSC – Articles 7-12). The rules relating to the drawing of archipelagic baselines are contained in LOSC– Article 47.

Sovereignty over Territorial Seas and Archipelagic Waters

The LOSC recognises coastal State sovereignty over their internal waters (waters landward of straight baselines), territorial sea and archipelagic waters. This sovereignty grants coastal States exclusive rights and control over fisheries resources within these maritime zones.¹² While the maximum seaward extent of the territorial sea was a matter of ongoing contention prior to the conclusion of the Third Conference on the Law of the Sea, the exclusive control of the fisheries resources within the territorial sea has long been recognised.¹³ As such, the LOSC grants coastal States ‘absolute and unfettered’ control over the exploitation, conservation and management of the Western and Central Pacific Ocean (WCPO) fisheries within these waters.¹⁴ Coastal States also hold similar rights and control over fisheries resources within their archipelagic waters, only limited by an obligation (without prejudice to their sovereignty) that they respect the traditional fishing rights and other legitimate activities of the immediately adjacent neighbouring State (and any relevant existing agreements).¹⁵ Highly migratory fisheries such as tuna are therefore subject to the sovereignty of the coastal State or, more likely, States, as they migrate through the territorial seas and archipelagic waters.

Sovereign Rights and the Exclusive Economic Zone

Beyond the territorial sea, the LOSC granted coastal States sovereign rights over the exploitation, conservation and management of the natural resources within their EEZ.¹⁶ Consequently, coastal States now held rights and responsibilities over the economic activities that occur within these waters, including fisheries.

The EEZ regime represented a compromise between competing interests, especially between developing coastal States and the major maritime powers. Long-standing high seas freedoms relating to, for example, navigation and

¹² LOSC – Article 2.

¹³ McDougal, M. S. and Burke, W. T. *The Public Order of the Oceans: A Contemporary International Law of the Sea*, Dordrecht, Martinus Nijhoff Publishers, 1985.

¹⁴ Kaye, S. M. *International Fisheries Management*, The Hague, Kluwer Law International, 2001. It should also be noted that Article 64 of the LOSC (highly migratory species) only applies to highly migratory fisheries within the EEZ and high seas. It does not refer to the territorial or archipelagic seas.

¹⁵ LOSC – Article 51. It is understood that this Article was drafted in order to accommodate previously negotiated bilateral agreements such as that between Indonesia and Malaysia, the so-called ‘Jakarta Treaty’ of 1982, which provides Malaysian fishermen to operate in areas located to the east of Indonesia’s Anambas islands, using traditional methods. The treaty also designates navigational and overflight corridors through Indonesian archipelagic waters in order to facilitate communications between peninsula Malaysia and the Malaysian parts of Borneo, Sabah and Sarawak as well as specifically safeguarding submarine pipelines and cables linking these geographically distinct parts of Malaysia. See, Treaty Between Malaysia and the Republic of Indonesia Relating to the Legal Regime of Archipelagic State and the Rights of Malaysia in the Territorial Sea and Archipelagic Waters as well as in the Airspace above the Territorial Sea, Archipelagic Waters and the Territory of the Republic of Indonesia Lying Between East and West Malaysia, signed 25 February 1982, entered into force 25 May 1984. Full text available at United Nations Office for Ocean Affairs and the Law of the Sea, *The Law of the Sea: Practice of Archipelagic States*, United Nations, New York, 1992, pp. 144-155.

¹⁶ LOSC – Article 56.

overflight for vessels and aircraft belonging to other States are preserved within EEZs. Simultaneously, coastal States are accorded sovereign rights over the resources off their coasts. In 1984 the United Nations (UN) Food and Agriculture Organisation (FAO) estimated that 90 per cent of marine fish and shellfish were caught within 200nm of the coast.¹⁷ Similarly, it was estimated that 87 per cent of the world's known submarine oil deposits would fall within 200nm-breadth zones of jurisdiction.¹⁸ The conclusion of the LOSC and the introduction of EEZs can therefore be characterised as the most significant reallocation of fisheries property rights of the 20th Century, shifting these valuable resource rights from international to national regimes.

The introduction of the EEZ concept in particular led to a tremendous increase in the scope of maritime space coming under national jurisdiction as coastal States quickly moved to take up this opportunity.¹⁹ EEZs encompass 147 million km² or around 41 per cent of the world ocean – an area roughly equivalent to the total area of land territory on the surface of the Earth.

All of the South Pacific's independent States have ratified LOSC, as have most of the extra-regional states with territory in the region.²⁰ The notable exception to this is the US.²¹ The Pacific island States have likewise been enthusiastic in advancing claims to extended maritime zones.²²

Western and Central Pacific Tuna Fisheries

These EEZ claims represent a tremendous actual and potential benefit to the Pacific island States, especially in regard to the abundant and valuable tuna fisheries. For example, in 2007 the tuna catch in the WCPO was estimated at 2,396,915 tonnes and worth approximately US\$3,895 million.²³ These tuna

¹⁷ Quoted in Schurman, R. "Tuna Dreams: Resource Nationalism and the Pacific Island's Tuna Industry" in *Development and Change*, Vol. 29, 1998, pp. 107-136, at p. 107.

¹⁸ Churchill, R. and Lowe, A. *The Law of the Sea*, 3rd Edition, Manchester University Press, Manchester, 1999, p. 162.

¹⁹ Prescott, J.R.V. and Schofield, C.H. *The Maritime Political Boundaries of the World*, Martinus Nijhoff Publishers, Leiden/Boston, 2005, p. 9.

²⁰ Although Fiji was the first state to sign LOSC, the Pacific small island developing States were not especially swift to adopt the LOSC due to a number of political, practical and policy considerations. See, Wolfers, E.P. "The Law of the Sea in the South Pacific" in Crawford, J. and Rothwell, D. (eds) *The Law of the Sea in the Asian Pacific Region*, Kluwer, The Hague, 1995, pp. 41-49, at pp. 41-46.

²¹ United Nations, *Status of the United Nations Convention on the Law of the Sea, of the Agreement Relating to the Implementation of Part XI of the Convention and of the Agreement for the Implementation of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, United Nations, New York, updated to 4 June 2008, available at <http://www.un.org/Depts/los/reference_files/status2008.pdf>

²² See, Anthony, 1990; and, United Nations Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, 'Table of Claims to Maritime Jurisdiction' 2008, at <http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/table_summary_of_claims.pdf>

²³ Williams, P. and Terawasi, P. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, including Economic Conditions – 2007*. Paper presented to the Fourth Regular Session of the Scientific Committee of the Western and Central Pacific Fisheries Commission, 11-22 August 2008, Port

fisheries represent the primary economic opportunity for many of the region's small island developing States.²⁴ Pacific island States depend upon these stocks: as a traditional and important source of food; as a critical form of revenue (US\$60-70 million in access fees or as high as 45% of total government revenue in the case of Kiribati)²⁵; employment (21,000 to 31,000 regional jobs or approximately five to eight per cent of all wage employment); and income (expenditure by locally-based vessels is worth US\$130 million).²⁶ Overall, the value of the annual tuna catch in the region has been calculated to equate to 11 per cent of the combined gross domestic product of all the countries in the region and almost half of their exports while access fees are a significant component of national economies for seven Pacific island States.²⁷ Consequently, the tuna industry has come to play a critical role in the economies of many Pacific island States.

Moving Beyond the 200 Nautical Mile Limit

As well as codifying the EEZ concept, the LOSC also refined the rules relating to the continental shelf.²⁸ Previously, the definition of the continental shelf under the relevant 1958 Convention was based on exploitability and was thus open-ended.²⁹ In contrast, Article 76(1) of LOSC establishes that the continental shelf of a coastal State consists of “the seabed and subsoil of submarine areas”, extending to a distance of 200nm from relevant baselines or “throughout the natural prolongation of its land territory to the outer edge of the continental margin.”³⁰

Thus, in accordance with the EEZ concept, codified through LOSC, every coastal State has the right to claim sovereign rights over both the seabed and

Moresby, Papua New Guinea, WCPFC-SC4-2008/GN WP-1. For further information see, Reid, C. *Value of WCPO Tuna Fisheries*, Pacific Islands Forum Fisheries Agency, Honiara, 2007.

²⁴ Tsamenyi and Manarangi-Trott, 2004, p. 189.

²⁵ Tarte, 2002, p. 262.

²⁶ Gillett, R., McCoy, M., Rodwell, L. and Tamate, J. *Tuna. A Key Economic Resource in the Pacific Island Countries*. A Report Prepared for the Asian Development Bank and the Forum Fisheries Agency. Honiara. 2001.

²⁷ Gillett, R. et al., 2001, at p. 11.

²⁸ The rights and duties of coastal States in relation to the continental shelf are detailed in Part VI of LOSC. See generally, Cook, P.J. and Carleton, C.M. (eds) *Continental Shelf Limits, the Scientific and Legal Interface*, Oxford University Press, New York, 2000.

²⁹ The First United Nations Conference on the Law of the Sea (UNCLOS I), which took place in Geneva in 1958, yielded four Conventions: Convention on the Territorial Sea and Contiguous Zone, opened for signature 29 April 1958, 516 UNTS 205 (entered into force 10 September 1964); Convention on the Continental Shelf, opened for signature 29 April 1958, 499 UNTS 311 (entered into force 10 June 1964); Convention on the High Seas, opened for signature 29 April 1958, 450 UNTS 11 (entered into force 30 September 1962); and Convention on Fishing and Conservation of the Living Resources of the High Sea, opened for signature 29 April 1958, 559 UNTS 285 (entered into force 20 March 1966).

Article 1 of the Convention on the Continental Shelf of 1958 defined the continental shelf as “the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the Territorial Sea to a depth of 200 metres”, “or to a depth beyond that limit where exploitation of resources was possible”.

³⁰ LOSC, Article 76(1)

the water column out to 200nm, regardless of whether the continental margin actually extends that distance offshore, and provided there are no overlapping claims with neighbouring states.³¹ Alternatively, where coastal States are positioned on broad continental margins, they are able to assert rights over those parts of the continental shelf beyond the 200nm EEZ limit forming part of their natural prolongation.³² These areas of continental shelf beyond the 200nm limit are frequently referred to as the ‘outer’ or ‘extended’ continental shelf.³³

Article 76 of LOSC goes on to lay down a complex series of formulae through which the coastal State can establish its rights to, and the outer edge of its continental shelf areas seaward of the 200nm limit.³⁴ In order to make these calculations and thus establish entitlement to outer continental shelf areas in accordance with Article 76, a coastal State is required to gather information related to the morphology of its continental margin and its geological characteristics, as well as bathymetric information relating to water depth. A submission then needs to be made to a specialised United Nations body, the Commission on the Limits of the Continental Shelf (CLCS).³⁵

Although complex, the point here is that Article 76 of LOSC provides for a definable outer limit to the continental shelf claims of coastal States and this represents a major step forward, compared to the indeterminate scenario under the 1958 Convention on the Continental Shelf.³⁶ This is not, however, to

³¹ These rights are, however, governed in accordance with Part VI (dealing with the continental shelf) of the Convention rather than Part V (dealing with the EEZ).

³² While no sure figure can be determined until all outer continental shelf submissions have been considered by the CLCS, it has been estimated that outer continental shelf areas may encompass around five per cent of the ocean floor. See, Cook, P.J. and Carleton, C.M. (eds) *Continental Shelf Limits*, Oxford University Press, Oxford, 2000, p. 3.

³³ The term ‘extended’ continental shelf gives a somewhat misleading impression that coastal States are somehow extending or advancing claims to “additional” areas of continental shelf. This is not the case as the sovereign rights enjoyed by the coastal State over the continental shelf are, as discussed above, inherent. Coastal States making submissions in respect of outer continental shelf areas are therefore merely seeking to confirm their existing sovereign rights over parts of “their” continental shelf beyond the 200 nm limit.

³⁴ Essentially, Article 76 provides two formulae according to which coastal States can establish existence of a continental margin beyond the 200 nm limit – the “Gardiner Line”, based on reference to depth or thickness of sedimentary rocks overlying the continental crust, or the “Hedberg Line” consisting of 60nm from the foot of the continental slope. Two maximum constraints, or ‘cut-off’ lines are then applied - either a distance of 350nm from relevant baselines or 100 nautical miles from the 2,500 metre isobath. See, LOSC, Article 76(4-5).

³⁵ The CLCS is a body consisting of 21 scientists. Importantly, the CLCS is not a legal body and it does not therefore adjudicate on submissions. Instead, the CLCS plays, or was intended to play, a technical role, evaluating whether coastal States, through their submissions, have fulfilled the requirements of Article 76. On the basis of this assessment the CLCS makes recommendations to the coastal State on the basis of which the coastal State can establish limits that are “final and binding” (LOSC, Article 76(8)).

³⁶ McDorman has stated that the fact that “the real achievement” of Article 76 of LOSC lies not in the complexity of its provisions or in the establishment of the CLCS but in the fact that it provides for “a definable limit” to continental shelf claims “however difficult the defining of that limit may be”. See, McDorman, T. “The Role of the Commission on the Limits of the Continental Shelf: A Technical Body

suggest that the process of preparing a submission to the CLCS, the CLCS's consideration of it and the subsequent fixing of final and binding outer continental shelf limits is anything but complex, expensive and fraught with a number of daunting uncertainties and ambiguities.³⁷

Outer Continental Shelf Opportunities in the South Pacific

It has been suggested that eight of the Pacific island States – the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Palau, Papua New Guinea, Solomon Islands and Tonga – have a “credible” case to make submissions to the CLCS in respect of a combined area estimated at approximately 1.5 million km² of outer continental shelf beyond their 200nm EEZ limits.³⁸ These countries have been actively engaged in gathering the required scientific information and preparing their submissions for the CLCS. These activities were given considerable impetus by the existence of a deadline for submissions which for many coastal States around the world, including most of the Pacific island States listed above, was 13 May 2009.³⁹ In this context the role of the Oceans and Islands Programme of the South Pacific Applied Geoscience Commission (SOPAC) has been (and continues to be) crucial.

As a result of these efforts a series of submissions from Pacific island States were lodged with the CLCS in early 2009. On 16 April 2009 the Cook Islands lodged its submission with the CLCS in respect of parts of the Manihiki Plateau located to the north of the Cook Islands, to the east of Tokelau and the central grouping of islands belonging to Kiribati (the Phoenix Islands) and west of the easternmost part of Kiribati (the Line Islands) as well as Jarvis Island which is an unincorporated territory of the United States.⁴⁰ This development was followed, on 20 April 2009, by a partial submission on the part of Fiji in

in a Political World” in *International Journal of Marine and Coastal Law*, Vol. 17, No. 3, 2002, pp. 301-324, at p. 307.

³⁷ Indeed, considerable debates have arisen over the interpretation of certain aspects of Article 76 of LOSC. For example, the provisions of Article 76 relating to submarine ridges and analogous features have been termed “a masterpiece of ambiguity” (Prescott and Schofield, 2005). Similarly, debate has arisen regarding the work and practice of the CLCS. See, for example, McDorman, *Ibid.*, and Macnab, R. “Submarine Elevations and Ridges: Wild Cards in the Poker Game of Article 76” in *Ocean Development and International Law*, Vol. 39, 2008, pp. 223-234.

³⁸ See, “Race Against Time as the Deadline to claim Extra Seabed Resources draws closer”, Oceans and Islands Programme, Pacific Islands Applied Geoscience Commission (SOPAC), available at, <<http://www.sopac.org/tiki-index.php?page=Extended+Continental+Shelf+Activities>>

³⁹ The original deadline was set as 10 years after LOSC coming into force on 16 November 1994. However, as this 2004 deadline approached it became clear that many interested States would struggle to complete their submissions in time. Consequently the States Parties to LOSC opted to extend the deadline, taking the date of the adoption of the Commission's Scientific and Technical Guidelines on 13 May 1999, as the start of the 10 year ‘clock’, resulting in the 13 May 2009 deadline. However, this deadline only applied to States that were party to LOSC prior to 13 May 1999. States becoming Parties to the Convention after that date have 10 years to make a submission from the date of their accession or ratification to LOSC.

⁴⁰ See, *Submission by the Cook Islands to the Commission on the Limits of the Continental Shelf Concerning the Manihiki Plateau*. Executive Summary, April 2009, available at, <http://www.un.org/Depts/los/clcs_new/submissions_files/cok23_09/cok_2009_executive_summary.pdf>

respect of the Lau Ridge – northern South Fiji Basin.⁴¹ This area of continental shelf located beyond the 200nm limit is located to the south of Fiji and includes areas concerning which New Zealand has already had a submission considered and recommendations received in 2008.⁴² Fiji's eastern neighbour, the Kingdom of Tonga, also subsequently made a submission on 11 May 2009 concerning the eastern Kermadec Ridge.⁴³ The outer continental shelf entitlements of Fiji and Tonga may well overlap and Executive Summary of the Fijian submission notes that Fiji and Tonga have held diplomatic consultations on outer continental shelf issues and that Tonga has agreed not to object to the CLCS considering Fiji's submission, without prejudice to the delimitation of a maritime boundary between the two States.⁴⁴

Additionally, a joint submission by Federated States of Micronesia, Papua New Guinea and Solomon Islands was lodged with the CLCS on 5 May 2009 in respect to Ontong Java Plateau.⁴⁵ The submarine plateau area has islands of the Federated States of Micronesia to the northwest, Papua New Guinea to the southwest and south, and the Solomon Islands to the south and southeast. The Republic of Palau also made a submission to the CLCS on 8 May 2009 concerning three areas of outer continental shelf, located to the east, west and north of Palau.⁴⁶ The largest of these three areas is that to the north, overlaps with Japan's submission for the Southern Kyusyu-Palau Ridge and potentially also overlaps with the entitlements of the Federated States of Micronesia (to the east). Palau has stated that its submission is without prejudice to the delimitation of maritime boundaries. Furthermore, the submissions of both

⁴¹ See, *A Partial Submission by The Republic of the Fiji Islands for the Establishment of the Outer Limits of the Continental Shelf of Fiji Pursuant to Article 76, Paragraph 8 of the United Nations Convention on the Law of the Sea*. Executive Summary, April 2009, available at <http://www.un.org/Depts/los/clcs_new/submissions_files/fji24_09/fji_2009exsummary.pdf>

⁴² *Ibid.* 5. The area concerned was submitted as part of New Zealand's 'Northern Region' in its submission of 19 April 2006 and includes outer continental shelf areas relating to the Kermadec and Colville Ridges to the north of New Zealand and up to the 200nm limits of Fiji and Tonga. See, *New Zealand Submission to the Commission on the Limits of the Continental Shelf pursuant to article 76(8) of the United Nations Convention on the Law of the Sea*. Executive Summary. 19 April 2006, available at, <http://www.un.org/Depts/los/clcs_new/submissions_files/nzl06/nzl_exec_sum.pdf>. With regard to New Zealand's submission for its Northern Region, the CLCS stated that New Zealand's submission fulfilled the relevant criteria and recommended the establishment of an outer edge of the continental margin in this area on the basis of New Zealand's submission. See also a Summary of the Recommendations of the Commission of 22 August 2008, p. 42. Available at, <http://www.un.org/Depts/los/clcs_new/submissions_files/nzl06/nzl_summary_of_recommendations.pdf>

⁴³ See, *A Partial Submission of Data and Information on the Outer Limits of the Continental Shelf of the Kingdom of Tonga Pursuant to Part VI of and Annex II to the United Nations Convention on the Law of the Sea*, Executive Summary. 11 May 2009, available at, <http://www.un.org/depts/los/clcs_new/submissions_files/submission_ton_46_2009.htm>.

⁴⁴ *Ibid.*

⁴⁵ See, *Joint Submission to the Commission on the Limits of the Continental Shelf concerning the Ontong Java Plateau by the Federated States of Micronesia, Papua New Guinea and the Solomon Islands*, Executive Summary. 5 May 2009, available at, <http://www.un.org/Depts/los/clcs_new/submissions_files/submission_fmgsb_32_2009.htm>.

⁴⁶ See, *Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76 of the Nations Convention on the Law of the Sea*, Executive Summary. 8 May 2009, available at <http://www.un.org/depts/los/clcs_new/submissions_files/submission_plw_41_2009.htm>.

Palau and Japan indicate that these States have no objection to the Commission considering and making recommendations on the other's submission for this area, without prejudice to maritime boundary delimitation.⁴⁷

Furthermore, as a consequence of a June 2008 amendment to the relevant rules, submissions of preliminary information, rather than full submissions, are allowable and several Pacific island States have taken advantage of this option.⁴⁸ Thus, on 20 April 2009: Fiji made such a submission of preliminary information (over and above its submission mentioned); Fiji and the Solomon Islands lodged a joint submission of preliminary information concerning the Charlotte Bank Region on 21 April 2009; Fiji, the Solomon Islands and Vanuatu also made a joint submission on 21 April 2009 concerning parts of the North Fiji Basin); and the Solomon Islands did so in respect of the 'donut hole' located between the Solomon Islands, Papua New Guinea and Australia. Both Papua New Guinea and the Federated States of Micronesia made separate but coordinated submissions of preliminary information on 5 May 2009 concerning the Mussau Ridge and Eauripik Rise. It is likely that the submissions of both Papua New Guinea and the Federated States of Micronesia will overlap not only with one another but with a submission from Indonesia for areas of outer continental shelf located seaward of its 200nm limit off Irian Jaya.⁴⁹ Finally, on 11 May 2009, New Zealand made a submission of preliminary information on behalf of Tokelau for parts of the Robbie Ridge and Manihiki Plateau.⁵⁰

In due course submissions are also likely to be forthcoming from both Tuvalu and Kiribati. However, as these two States became parties to LOSC in 2002 and 2003 respectively, consequently the deadlines for their submissions are set at 2012 and 2013, 10 years from the date that they became parties to LOSC.⁵¹

⁴⁷ Ibid., p. 8. See also, Japan's Submission to the Commission on the Limits of the Continental Shelf, Executive Summary, 12 November 2008. available at,

<http://www.un.org/Depts/los/clcs_new/submissions_files/submission_jpn.htm>, pp. 7-8.

⁴⁸ In June 2008 the meeting of the State Parties to the LOSC decided that instead of a full submission, coastal States may instead submit "preliminary information indicative of the outer limits of the continental shelf beyond 200 nautical miles and a description of the status of preparation and intended date of making a submission". See, Decision of the eighteenth Meeting of State Parties, SPLOS/183 at <http://www.un.org/Depts/los/meeting_states_parties/SPLOS_documents.htm>. This relaxing in the requirements to meet the deadline and essentially 'stop the clock' was taken because many coastal States were struggling to complete their submissions in time to meet the 13 May 2009 deadline applicable to them.

⁴⁹ On 16 June 2008 Indonesia made a partial submission to the CLCS in respect of an area of outer continental shelf off the north-western coast of Sumatra. See, *Continental Shelf Submission of Indonesia: Partial Submission in respect of the area of North West of Sumatra*, Executive Summary, 16 June 2008, available at <http://www.un.org/depts/los/clcs_new/submissions_files/submission_idn.htm>.

⁵⁰ Details of these submissions of preliminary information to the CLCS are available at, <http://www.un.org/Depts/los/clcs_new/commission_preliminary.htm>.

⁵¹ Tuvalu became a party to LOSC on 9 December 2002 and Kiribati on 24 February 2003 meaning that the deadlines for their submissions to the CLCS are 9 December 2012 and 24 February 2013 respectively.

In keeping with the process outlined above, the CLCS will, in due course, consider these submissions, make recommendations and the coastal States will declare their “final and binding” outer continental shelf limits. However, it is abundantly clear that many of these submissions relate to the same areas of outer continental shelf and overlap. Under this scenario it should be emphasised that the Commission is a scientific rather than technical body. As such it does not have the mandate to consider areas subject to a sovereignty dispute or subject to overlapping maritime claims. Furthermore, the Commission’s recommendations are specifically without prejudice to the delimitation of maritime boundaries. Ultimately, it will up to the coastal States themselves to resolve any overlapping maritime claims and disputes.

Article 77(1) of LOSC provides that coastal States exercise sovereign rights over continental shelf areas “for the purpose of exploring it and exploiting its natural resources”. While resource opportunities related to the outer continental shelf tend to be largely framed in terms of access to seabed energy and mineral resources, coastal States also have sovereign rights over “living organisms belonging to sedentary species.” These are defined as “organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.”⁵² Examples of this type of organism include molluscs (abalone, oysters, scallops, trochus shell), crustaceans (lobsters, crabs) and echinoderms (sea urchins, beche-de-mer). These sedentary living resources of the outer continental shelf, including marine genetic resources, may also prove to have considerable value.

Advancement in technologies to explore the seabed has led to the discovery of features such as seamounts, hydrothermal vents, methane seeps and deep sea sediments. The marine species and micro-organisms that have evolved to exist in these extreme environments may provide developmental potential for a range of valuable applications in a number of sectors including medicine and pharmaceutical industries. This has led to the emergence of “bioprospecting” and the deep seabed, including outer continental shelf areas, is likely to be a focus for these activities.⁵³ This represents a potentially rich resource and opportunity for coastal States. Indeed, marine biotechnology related products were estimated to be worth US\$100 billion in 2000 alone.⁵⁴ Simultaneously,

⁵² LOSC, Article 77(4).

⁵³ Bioprospecting has been defined as including “the entire research and development process from sample extraction by publicly funded scientific and academic research institutions, through to full scale commercialization and marketing by commercial interests such as biotechnology companies.” See, United Nations “An Update on Marine Genetic Resources: Scientific Research, Commercial Uses and a Database on Marine Bioprospecting”. United Nations Informal Consultative Process on Oceans and the Law of the Sea Eight Meeting New York, 25-29 June 2007, p. 7-7. See also, Arico, S. and Salpin, C. “Bioprospecting of Genetic Resources in the Deep Seabed: Scientific, Legal and Policy Aspects”. UNU-IAS Report. United Nations University, 2005, pp. 25-25, available at, <www.ias.unu.edu/binaries2/DeepSeabed.pdf>

⁵⁴ Arico and Salpin, 2007, p. 17. See also, Mossop, J. “Protecting Marine Biodiversity on the Continental Shelf Beyond 200 Nautical Miles” in *Ocean Development and International Law*, No. 38, 2007, p. 285.

however, such developments pose significant surveillance and enforcement challenges.⁵⁵

The Limits of Claims to Maritime Jurisdiction

One of the key objectives of the EEZ concept was to facilitate enhanced management and conservation of living resources, thereby addressing rising fears over unsustainable fishing mentioned above. It was also widely anticipated that EEZs would (and should) deliver substantial economic gains to developing states, though whether this has actually taken place is far from clear. It was generally assumed that the granting of sovereign rights to coastal States over their EEZs would significantly benefit coastal States, at some cost to distant-water fishing nations (DWFNs) who previously had fished these waters and the stocks therein (either through displaced effort or requirement to pay access fees). However in practice, DWFNs still largely control key aspects of the global fisheries trade, including access to the most lucrative markets.

This has also largely been the case in the Pacific. While it is clear that the declaration of EEZs has delivered some economic gains to the Pacific island States, they have, thus far, not proved to be as significant as hoped.⁵⁶ Why is this the case and what can be done to overcome the constraints identified?

Transboundary Resources

The fundamental challenge facing the Pacific island States relates to the highly migratory and transboundary nature of the key living resources at stake. These tuna migrate between the national maritime jurisdictions of the Pacific island States, and between these collective EEZs and the high seas. Furthermore, the migratory patterns of tuna in the Pacific are intimately linked to the El Niño Southern Oscillation (ENSO) Index. This phenomenon involves east-west shifts in the Pacific equatorial “warm pool”, which in turn impacts spatially and temporally on the presence of tuna stocks.⁵⁷ Essentially, as the warm pool moves, so do the tuna with significant consequences for seasonal catches in individual Pacific island’s EEZs.

Thus, the maritime claims of the Pacific island States, whilst broad, are not broad enough to cover the whole fishery. In this context, not only are maritime boundaries between national claims important but also the ‘boundary’ between the Pacific island States’ collective EEZ limits and the high seas becomes

⁵⁵ Schofield, C.H. and Arsana, I.M.A. “Beyond the Limits? Outer Continental Shelf Opportunities and Challenges in East and Southeast Asia” in *Contemporary Southeast Asia*, Vol. 31, No. 1, 2009, pp.28-63 at pp. 53-54.

⁵⁶ See, for example, Schurman, 1998.

⁵⁷ Cartwright, I. and Willock, A. *Oceania’s Birthright: The Role of Rights-Based Management in Tuna Fisheries of the Western and Central Pacific*, Paper presented to the FishRights 99 Conference, Perth, Australia, 11-19 November, 1999.

critical, providing the legal and spatial framework against which the maritime geopolitical interactions between coastal States and DWFNs are played out.

Recognition of Sovereign Rights

The Pacific island States have faced a considerable, and ongoing, struggle to win recognition of their sovereign rights over resources in their EEZs from key DWFNs. The EEZ regime provides claimant States with considerable sovereign rights (rather than full sovereignty) in relation to the conservation and utilisation of living resources. However, these rights are not exclusive in nature and are also coupled with significant responsibilities. These obligations are articulated, in particular, in LOSC Articles 61 and 62, dealing with the conservation of living resources, and the utilisation of living resources respectively.

Article 61(1) provides that the coastal State “shall determine the allowable catch of the living resources in its exclusive economic zone.” The Article goes on to specify that the coastal State shall “ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation”, and that such measures shall be designed to “maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield.”⁵⁸

Without prejudice to the provisions of Article 61, LOSC Article 62 provides that the coastal State shall “promote the objective of optimum utilization of the living resources in the exclusive economic zone” and shall determine its own capacity to harvest such resources. Where the coastal State lacks the capacity to harvest the entire allowable catch, Article 62 of the LOSC requires that the coastal State shall give other States access to the surplus of the allowable catch. In doing so the coastal State is required to have “particular regard” to the provisions of LOSC Articles 69 and 70 which deal with land-locked states and geographically disadvantaged States respectively. These provisions can also be interpreted address the concerns of DWFNs that they would be denied access to fishing grounds within newly-declared EEZs. However, the fact that it remains the prerogative of the coastal State to determine the total allowable catch (TAC), determine its domestic harvesting capacity and thus determine the surplus that may be made available to other States means that coastal States have retained control over this process.

Furthermore, LOSC Article 63 provides for cooperation between coastal States where stocks occur in both their EEZs and for cooperation between coastal States and fishing States where stocks occur both in the EEZ of the coastal State and in the adjacent areas of high seas. Article 64 also obliges coastal States and fishing States to cooperate to ensure “conservation” and the promotion of “the objective of optimum utilization” of highly migratory

⁵⁸ LOSC, Article 61(1).

species. Such cooperation is to be achieved either directly between such states or through the medium of “appropriate subregional or regional organizations.”

Given the highly migratory nature of tuna, comprehensive management of the resource both within and between national EEZs and on the high seas is crucial. Unrestrained exploitation in a particular EEZ or on the high seas clearly has the potential to impact on catches elsewhere, and thus the revenues to be derived from the resource, and the sustainability of the fishery as a whole. However, despite widespread agreement on the need for compatible, indeed comprehensive, management of migratory stocks across the high seas and EEZs, there are significant disputes between coastal States and DWFNs over the interpretation and application of the relevant provisions of LOSC.

Coastal States have steadfastly sought to protect and preserve their sovereign rights as provided for in LOSC and attempted to focus discussions on the need to address unregulated fishing on the high seas. DWFNs have argued that management of highly migratory stocks such as tuna should be applied throughout their range, and therefore they should have a substantive role in management measures on the high seas and in the EEZs of coastal States.

These tensions were explicit in the course of the negotiations leading to the conclusion of LOSC and were not effectively resolved. This is evident in the US refusal until the late 1980s to acknowledge claims by Pacific island States to jurisdiction over tuna stocks within their EEZs in the absence of US participation in their management both on the high seas and within their EEZs.⁵⁹ In the context of the LOSC, a resolution of sorts was reached through the use of ambiguous legal language and provisions capable of supporting distinctly differing interpretations.

These fundamental differences of perspective became a recurring theme in subsequent bilateral and multilateral engagements between coastal States and DWFNs – notably in negotiations towards the conclusion of the United Nations Fish Stocks Agreement (UNFSA)⁶⁰ and in the Multilateral High Level Conferences leading up to the conclusion of the Western and Central Pacific Fisheries Convention (WCPFC Convention)⁶¹ and the consequent creation of the Western and Central Pacific Fisheries Commission (WCPFC).⁶²

⁵⁹ Schurman, 1998, pp. 112-113; and Tsamenyi, M. “The Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America: The Final Chapter in United States Tuna Policy” in *Brooklyn Journal of International Law*, Vol. 15, 1989, pp. 183-222.

⁶⁰ *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*, United Nations, 1995.

⁶¹ *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*. Available at, <<http://www.wcpfc.int/>>

⁶² Tarte, 2002.

The WCPF Convention closely follows the framework established by the UNFSA and emphasises a precautionary and ecosystem based approach to fisheries management. The WCPF Convention applies to all waters of the WCPO, including both high seas and EEZs. However, the WCPF Convention clearly states in Article 4 that nothing in the Convention shall prejudice the rights, jurisdiction and duties of States under the LOSC and UNFSA, and that the WCPFC shall be interpreted and applied in the context of, and in a manner consistent with the LOSC and UNFSA.

There are key disagreements between DWFN and Pacific island States over how the WCPF Convention should be interpreted regarding implementation of management measures in EEZs and on the issue of allocation. Both interpretations cite relevant articles of the WCPF Convention and UNFSA.

Pacific island States argue that the main purpose for the WCPFC is to regulate the high seas and ensure that stocks are not over-fished on the high seas.⁶³ They note that management measures already exist within their EEZs. This argument is supported by provisions within both the WCPFC and the UNFSA which require measures be compatible across the high seas/EEZ nexus, taking into account existing measures already in practice.

DWFNs argue that the WCPFC, as the primary management authority for tuna across the WCPO, should establish management and conservation measures across the entire range of the stocks, both inside EEZs and on the high seas.⁶⁴ These States refer to Article 10 of the WCPF Convention which provides that the WCPFC can determine the quantity of catches, levels of effort, limitations on fishing capacity and other necessary management measures throughout the Convention area.

Pacific island States respond that the WCPFC can establish 'global' catch, effort and/or capacity limits across the entire Convention area, but that it is the sovereign right of coastal States to determine catches within their EEZs. This view is supported by the 'without prejudice to the sovereign rights of coastal States' clause in Article 10 of the WCPF Convention regarding the WCPFC's functions.

Similar arguments between coastal States and DWFNs have recently emerged in regard to the application of the WCPFC to the archipelagic waters of coastal States. Due to some controversy over the issue, in 2008 the Chair of the WCPFC requested an opinion from the legal counsel on, amongst other things, the application or otherwise of the WCPFC to archipelagic waters. The legal counsel referred to the WCPF Convention, LOSC and UNFSA and suggested

⁶³ Ram-Bidesi and Tsamenyi, 2004.

⁶⁴ Cordonnery, Laurence. 2000. A Note on the 2000 Convention for the Conservation and Management of Tuna in the Western and Central Pacific Ocean. *Ocean Development & International Law*, Volume 33, Issue 1 January 2002, pages 1 – 15.

that the WCPF Convention only has application to the high seas and EEZs, and not the internal waters, archipelagic waters and territorial seas, due to qualifications in UNFSA and the WCPF Convention between “sovereign rights” and “sovereignty”. Nevertheless, the legal counsel noted that in addition to the WCPF Convention, the LOSC and UNFSA, other principles of international law need to be considered, particularly the principle of “good neighbourliness” which requires that States must act in good faith and ensure that activities in their territories do not cause harm or affect the interests of other States.

Despite this, the US continued to oppose such an interpretation and argued that the WCPFC applies to archipelagic waters, as well as EEZs and high seas. Confusingly, the US distinguished between territorial seas and archipelagic waters in this regard and contended that territorial seas remained excluded from the application of the WCPF Convention.⁶⁵ Pacific island States, Philippines and Indonesia refuted the US position and argued that as archipelagic waters are deemed to be under the sovereignty of the coastal State, they are outside the jurisdiction of the WCPFC (as is the case with territorial seas).

A critical focus for the WCPFC will be how it develops co-operative management across the high seas/EEZ nexus, and by operation or intent, allocates rights to the tuna resource. Resolving conflicts over interpretations of compatible management will be critical to the effective functioning of the WCPFC and its ability to agree upon, and implement effective conservation and management measures across the range of the stocks.

Enforcement Challenges

A key problem associated with the broad maritime claims to jurisdiction made by the Pacific island States is that of scale. These maritime claims are enormous in scope and present significant monitoring, control and surveillance challenges to ensure sound management and counter the threat of illegal, unreported and unregulated (IUU) fishing. Additionally, maritime boundaries remain largely unsettled so there is some uncertainty as to the precise scope of individual coastal State EEZs. Large EEZs such as these also represent a significant responsibility in ocean management and require sophisticated infrastructure and investment, placing serious demands on the limited human and financial resources of the claimant States involved.

Thus, while the expansive maritime claims of the Pacific small island States are undoubtedly a vital resource and opportunity, they also represent a major oceans governance and management burden to the claimant States. The scale and nature of the problem is thrown into stark relief by the example of Kiribati which has a total landmass of 811km² but a claimed EEZ of approximately 3.3 million km².

⁶⁵ WCPFC Summary Report, 2008.

The Geopolitics of Fish

Despite the vast maritime claims of the Pacific small island States, and their substantial sovereign rights, it has predominantly been the developed DWFNs who have reaped the most benefit from the tuna resources. Historically, DWFNs have caught 90 per cent⁶⁶ of the WCPO tuna, despite approximately 41 per cent⁶⁷ of the catch originating from within the EEZs of Pacific island States. Furthermore, it has been argued that the level of access fees delivered to the Pacific island States from DWFNs, and thus the “resource rent” of the fishery, is in the order of three to six per cent - this is considered low in global terms.⁶⁸

As noted, many Pacific island States are heavily reliant on the region’s tuna fisheries. Development aid also forms a significant component of national budgets. This represents a key area of vulnerability and a lever that can be applied, particularly by DWFNs to secure preferential terms of access. DWFNs have proved adept at playing Pacific island States off against one another and using aid as a political lever to undermine regional moves to enhance cooperative management and enforcement measures. It has been argued that this tied aid provides a false benefit. FFA members could be substantially better off if they were to act collectively to raise access fees to, arguably, a more equitable level, even if development aid were entirely withdrawn.⁶⁹ It is also the case that the lack of transparency that occurs in some bilateral access negotiations exacerbates opportunities for corruption which seriously undermines both revenue collection efforts and fisheries management controls.⁷⁰

For example, for many years Japan steadfastly refused to entertain multilateral negotiations with the Pacific island States as a group, instead preferring to negotiate on a bilateral basis.⁷¹ This strategy puts DWFNs in a strong negotiating position and provides an opportunity for development aid to be applied as a tool to secure advantageous fisheries access terms, thereby eroding the effectiveness of collective regional approaches.⁷² As a key distant-water fishing power in the region, accounting for up to three-quarters of the foreign fishing fleet at its peak, Japan was able to wield great power in bilateral negotiations.⁷³ This translated into a lack of transparency over access fees and

⁶⁶ Tarte, S. “Negotiating a Tuna Management Regime for the Western and Central Pacific: The MHLC Process 1994-1999” in *The Journal of Pacific History*, Vol. 34, No. 3, 1999, pp. 273-280.

⁶⁷ Hampton, J. *Tuna Fisheries and their Impacts in the Western and Central Pacific Ocean*, Secretariat of the Pacific Community, 2005, <<http://www.spc.org.nc/artImpact%20of%20tuna%20fisheries.htm>>

⁶⁸ Peterson, 2003, pp. 221-225; see also, Schurman, 1998, p. 19.

⁶⁹ Peterson, 2003, p. 221 and 227.

⁷⁰ Hanich, Q. and Tsamenyi, T. “Managing Fisheries and Corruption in the Pacific Islands Region” in *Marine Policy*, Vol. 33, 2009, pp. 386-392, at p. 386.

⁷¹ Schurman, 1998, pp. 110-112.

⁷² Tsamenyi and Manarangi-Trott, 2004, p. 200.

⁷³ Schurman, 1998, p. 110 and Tarte, 1997, p. 265.

resistance to, for example, the establishment of minimum conditions for entry into EEZs on the part of DWFN vessels and the creation of a vessel monitoring scheme.

Pacific island States are also disadvantaged by the impacts of globalisation on the tuna industry. In essence their key economic advantage is access to fish stocks. However, small island developing States are ill-equipped to be at the high-risk, technically challenging and capital-intensive end of the fishing industry. This has led to the failure of numerous attempts to establish domestic tuna fishing operations. The Pacific island States are effectively excluded from the more profitable “downstream” end of the tuna business as these activities, especially the distribution and retail components of the commodity chain, remain dominated by multinational corporations.⁷⁴

A profound asymmetry exists between Pacific island States and the DWFNs in negotiations on these issues. Combating overfishing, reducing overall fishing effort and securing improved returns pits small island developing States against some of the richest, most powerful and most capable states in the world, especially in terms of negotiating experience.

Challenges on the Outer Continental Shelf

As noted above, a number of Pacific island States have made submissions relating to areas of continental shelf beyond the limits of their 200nm EEZs to the CLCS, which may well result in substantial increases in the extent of their maritime jurisdictions. These areas are likely to include potentially highly valuable living resources and marine biodiversity. These resources and the marine habitats that they exist in, such as seamounts and hydrothermal vents are potentially vulnerable. This means that the coastal States which confirm their rights over outer continental shelf areas face oceans governance responsibilities and challenges as well as resource exploitation opportunities.⁷⁵ Serious management issues may well arise on the outer continental shelf as a consequence of the fact that coastal State sovereign rights over these continental shelf areas will be overlain by areas of high seas. This layering of jurisdictions is potentially problematic and it is possible that competing and potentially conflicting uses will arise. For example bioprospecting may conflict with fishing interests on sea mounts.⁷⁶ A significant challenge also exists in these areas in distinguishing between marine scientific research on the one hand and commercial bioprospecting on the other.⁷⁷ The fact that outer

⁷⁴ Schurman, 1998, pp. 115-120.

⁷⁵ As noted, Article 77 of UNCLOS provides coastal States with sovereign rights regarding the exploration for and exploitation of resources on the continental shelf, including the outer continental shelf. Although Article 77 is silent with regard to balancing obligations to protect and conserve the resources of the continental shelf (in contrast, for example, to Article 61 dealing with the EEZ), there does exist a general obligation for coastal States to “protect and preserve the marine environment” UNCLOS, Article 192.

⁷⁶ See, for example, Mossop, 2007, pp. 285-287.

⁷⁷ *Ibid.* pp. 292-296.

continental shelf areas are, by their very nature, remote and peripheral, will tend to exacerbate these regulatory and enforcement challenges.

Realising Opportunities

The key means for the Pacific island States to address the significant challenges facing them in the maritime arena is through regional or sub-regional cooperation. This is especially the case in tackling resource conflicts in the context of the tremendous asymmetries in political and economic power inherent between these small developing states and developed DWFNs. The Pacific island States have already proved relatively successful in adopting cooperative multilateral approaches to the maritime challenges facing them, especially through the development of regional and sub-regional organisations and arrangements such as the Pacific Islands Forum Fisheries Agency (FFA), which was established in 1979 and is based in Honiara in the Solomon Islands. The FFA was set up with the express purpose of facilitating the management, conservation and use of the tuna resources within member State's EEZs and beyond.⁷⁸ The past 30 years has demonstrated a remarkable level of cooperation within the Pacific islands region that has substantially increased the capacity of the region to manage their fisheries and successfully negotiate with far more powerful DWFNs – most particularly the US and Japan.

A good example of the benefits of cooperation is provided by how the sensitive issue of maritime boundaries has been handled. A consequence of the enormous extension of maritime claims seawards, notably through the introduction of the EEZ regime, has been the creation of a multitude of 'new' maritime political boundaries as States 400nm distant from one another abruptly find themselves to be maritime neighbours with potentially overlapping claims to maritime jurisdiction. Furthermore, in the context of outer continental shelf entitlements, maritime neighbours in need of the delimitation of a seabed boundary may hypothetically be in excess of 700nm distant from one another.⁷⁹ Given the relatively recent nature of the maritime claims in question, many of which have only been advanced since the 1970s onwards, it is unsurprising that the maritime political map of the world is far short of completion. Indeed, less than 50 per cent of potential maritime boundaries worldwide have been even partially delimited.⁸⁰

In this context, the Pacific islands region has been successful in the establishment of a mechanism of dealing with undelimited maritime boundaries. In the South Pacific less than 30 per cent of potential maritime

⁷⁸ The FFA comprises 17 member governments: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu. See: <<http://www.ffa.int/>>

⁷⁹ Prescott and Schofield, 2005, p. 216.

⁸⁰ *Ibid.* pp.217-218.

boundaries have been even partially delimited.⁸¹ Accordingly, it might have been anticipated that maritime boundaries would prove highly problematic. This has not, however, proved to be the case. Territorial and maritime jurisdictional disputes are not completely absent from the region – for example, France and Vanuatu dispute sovereignty over Matthew [Umaenupne] and Hunter [Umaeneag] Islands and delimitation between Fiji and Tonga is complicated by Tonga’s claims in respect of the so-called “Tongan Box” arising from that country’s Royal Proclamation of 1887 and Tonga’s claims to North and South Minerva Reefs [Teleki Tokelau and Teleki Tonga].⁸² Nonetheless, such disputes have not proliferated as they have elsewhere, for example in Southeast and East Asia.

Furthermore, disputes among the Pacific island States over transboundary resources such as tuna have largely been circumvented and the monitoring and protection of the stocks concerned has been enhanced. This has been achieved through agreement facilitated by the FFA, on interim maritime boundaries based on equidistance lines. These theoretical maritime boundaries are used to determine the distribution of a substantial portion of the access fees derived from the US treaty discussed above, on the basis of the distribution of catches in the maritime zones these theoretical boundaries define.⁸³

Another major breakthrough illustrating the benefits of cooperation can be seen in the areas of surveillance and enforcement. The Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region of 1992 broke new ground, particularly in respect of cooperative maritime surveillance and enforcement.⁸⁴ This agreement provides flexible arrangements for cooperation in fisheries surveillance among Pacific island States. Of particular note are the Niue Treaty’s provisions enabling vessels and personnel of one State the authority to enforce the laws of another State so scarce surveillance assets can be deployed most efficiently.

Similarly, some limited efforts at increased cooperation have been made in the area of regional ocean governance where steps have been taken towards the drafting of a Pacific Islands Regional Oceans Policy (PIROP). The goal of PIROP is stated to be “to ensure the future sustainable use of our Ocean and its resources by Pacific islands communities and external partners.” In order to achieve this, PIROP is guided by five principles: improving understanding of the ocean, sustainably developing and managing the use of ocean resources,

⁸¹ Prescott, J.R.V. and Boyes, G. *Undelimited Maritime Boundaries in the Pacific Ocean Excluding the Asian Rim*, Maritime Briefing, Vol. 2, No. 8, 2000, International Boundaries Research Unit, Durham; and, Prescott and Schofield, 2005, pp. 397-428. In this context it is worth noting that the South Pacific Applied Geosciences Commission (SOPAC), based in Fiji, hosts the Pacific Island Regional Maritime Boundaries Project, with the objective of assisting countries around the South Pacific region in the delimitation of their maritime boundaries. See: <<http://www.sopac.org/tiki/tiki-index.php?page=Pacific+Island+Regional+Maritime+Boundaries+Project>>

⁸² Prescott and Schofield, 2005, pp. 399-404.

⁸³ Tsamenyi and Manarangi-Trott, 2004, pp. 197-198.

⁸⁴ Available at: <<http://www.oceanlaw.net/texts/niue.htm>>

maintaining the health of the ocean, promoting the peaceful use of the ocean, and creating partnerships and promoting cooperation. Implementation is, however, still at a relatively early stage.⁸⁵

Perhaps the best example of strong regional cooperation can be seen in the recent developments of the Vessel Day Scheme (VDS) by the Parties to the Nauru Agreement (PNA).⁸⁶ The previous PNA fishing vessel cap had become increasingly seen as a blunt and not particularly effective tool at promoting conservation and development interests. Problems emerged as the fishing vessel cap made it difficult for new fleets to enter the fishery that were more advantageous to PNA interests. In 2007, the Pacific island members of the PNA reviewed the vessel cap and agreed to introduce a limit on the number of purse seine days. Vessel days could be sold in such a way as to maximise economic returns, enable greater fleet flexibility and better conservation outcomes.

In response, the VDS was introduced in December 2007 and aimed to constrain catches to sustainable levels and increase benefits from fishing activities through access fees paid by DWFNs. The VDS replaced the broad purse seine vessel number cap with a set number of days that can be fished in the combined EEZs of the PNA. Vessel days are then allocated to each PNA country. This enabled PNA to account for effort creep by differentiating fishing days based on vessel length and allowing for vessel formulas to be modified over time to account for changes in technology and efficiency.

The VDS increases the opportunities for a Pacific island State to take a more proactive approach to developing their own fisheries and progressing their own aspirations. For example, a key objective of the VDS is to create competition between DWFN vessels to purchase fishing days at the maximum price. As the VDS has been introduced, allowances have been made for vessels that fish under an internal arrangement within the PNA membership that supports regional development aspirations; the FSM Arrangement.⁸⁷

Simultaneously, the Pacific island members of the PNA updated their requirements for licensed foreign fishing vessels and introduced new licensing

⁸⁵ The text of PIROP is available at: <<http://www.spc.int/piocean/forum/new/policy2.htm>>

⁸⁶ The 1982 Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest (Nauru Agreement, 1982) was negotiated by the equatorial Pacific island States whose waters include the most significant fisheries: Papua New Guinea, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands were all original signatories. Tuvalu subsequently became a party in 1991.

⁸⁷ FFA interest in developing their own fisheries grew throughout the 1980s and 1990s and many Pacific island States aspired to replace DWFN fleets with locally based domestic fleets. In response to these aspirations, PNA members established the FSM Arrangement for Regional Fisheries Access (FSM Arrangement, 1995). The Arrangement further elaborated the Nauru Agreement's objectives of supporting local development and promoting PNA vessels over DWFN vessels. In this regard, the FSM Arrangement provided for lower cost licenses and access to the waters of all PNA States for domestic and locally based vessels that met specific criteria.

terms and conditions that set important precedents in coastal State management of tuna fisheries. Firstly, the PNA agreed that they would collectively apply additional licensing terms and conditions that introduced new conservation and management requirements within their EEZs. However, more significantly, the PNA agreed that they would also prohibit licensed fishing vessels from fishing in two high seas pockets surrounded by PNA EEZs north and northeast of Papua New Guinea (see Figure 1).

Vessels may continue fishing on the high seas if they wish, but in so doing they may not fish in PNA EEZs. As such it does not breach the freedom of the seas that is enshrined in Article 87 of the LOSC. However, given that the PNA EEZs contain the most productive fishing grounds, it is a powerful tool and quickly raised concerns amongst DWFNs. Despite significant opposition from DWFN interests, the PNA signed the Third Implementing Arrangement (3IA, 2008) in Palau in May 2008.

This cooperation between PNA members subsequently supported FFA member interests within the WCPFC. In 2006 and 2008, key arguments between coastal States and DWFN were partly resolved in practice (though not clearly in principle) through the incorporation of the PNA VDS and the PNA 3IA into WCPFC conservation and management measures. These decisions indirectly recognised the primacy of coastal States over management of fisheries within their EEZs and framed conservation and management for high seas fisheries in the context of existing management practised in EEZs. A key example of this was the endorsement of the PNA 3IA's closure of the high seas pockets and its inclusion within the WCPFC bigeye and yellowfin conservation and management measure (CCM 2008-01). It is highly unlikely that the WCPFC would have agreed to close any high seas areas without their hand being previously forced by the PNA.

However, while there was significant progress on the issue of EEZ/high seas compatibility, disagreements have increased over the application of regional measures to archipelagic waters and there continues to be significant challenges in terms of the application and implementation of the WCPFC in practice.

The Way Forward

Recent achievements within the WCPFC, particularly the bigeye and yellowfin conservation measure, illustrate the strength of the FFA and PNA sub-group when they negotiate collectively. Similarly, the achievements of the FFA and PNA management, control and development mechanisms demonstrate their potential to manage fishing efforts throughout their area in the direct interests of their members, and to extend their influence beyond their immediate boundaries. While neither the current VDS nor WCPFC conservation and management measures yet meet conservation requirements as recommended by

the WCPFC Scientific Committee, they provide the initial framework – due almost entirely to the drive of the FFA and PNA.

With regard to living resources, especially the key economic resource tuna, it is vital to Pacific Island interests that they are able to sustain this high level of cooperation and build upon the progress achieved to date. While some success has been realised in improving the returns to Pacific island States from the tuna fisheries, there is still a widespread perception that more can be achieved. Distant water fishing fleets depend upon access to EEZs for their financial viability. No surface fishing fleet, distant water or locally based, can profitably operate pole and line or purse seine vessels without some access to waters under national jurisdiction.⁸⁸

Achieving higher returns calls for enhanced cooperation and sophisticated collective development strategies. The history of bilateral negotiations between DWFNs and Pacific island States demonstrates that bilaterals play to DWFN strengths and enable DWFN to “divide and conquer” island States.⁸⁹ In contrast, when Pacific island States act multi-laterally, they do so from a position of strength, because together they control access to the fishing grounds which are crucial to the economic viability of distant water fishing operations. An example of this is the US multi-lateral treaty which has historically generated higher access fees and cooperation for Pacific island States than equivalent bilateral agreements.⁹⁰

The collective achievements of the Pacific island States, and further developments within the PNA, place the region in a good position to improve the benefits from the tuna fisheries. However, the success or failure of the cooperative arrangements and strategies depend upon the effective participation of members and their ability to implement decisions within the national context. The inability of some members to effectively participate and buy in to regional decisions undermines the ability of the entire region to sustainably manage and benefit from its maritime resources.

Collective regional strategies require the informed will of all parties involved. This requires that all Pacific island States have the national capacity and confidence to determine and pursue their own national interest, within their shared vision of a collective strategy. The compromises and balancing required in any collective strategy require members to make choices in the full

⁸⁸ Van Santen, G. and Muller, P. *Working Apart or Together: The Case for a Common Approach to Management of Tuna Resources in the Exclusive Economic Zones of Pacific Island Countries*, Pacific Island States Discussion Paper Series (10), World Bank, Washington, 2000.

⁸⁹ Good discussions of some of the issues in bilateral negotiations between DWFN and Pacific island States can be found in: Schurman, 1998; Tarte, 1999; Barclay and Cartwright, 2006.

⁹⁰ The Treaty on Fisheries Between the Governments of Certain Pacific island States and the Government of the United States was negotiated multi-laterally and signed in 1988. The Treaty governs access for USA purse seiners to all FFA member’s EEZs and includes catch reporting and other requirements. Access fees from the USA multi-lateral are far higher (exceeding 20% of landed value) than bilateral access fees with other DWFNs (3.5% to 6%).

knowledge of their strategic context. Otherwise, nice words and silences simply provide a paper-thin veneer with little real substance underneath.

This chapter suggests that the region consider further developing national capacity building and engagement strategies in order to sustain and build the regional cooperation that is necessary to meet development and conservation objectives.⁹¹ Such a strategy would work in-country within particularly vulnerable Pacific island States and build the capacity of governments to analyse, strategise, prepare for, participate and implement regional agreements and development strategies.

Similarly, ongoing implementation challenges in monitoring, control and surveillance undermine the sustainability of key tuna stocks and require increased regional cooperation and coordination responses, supported by national capacity-building programs if they are to be overcome. The current development by the FFA of a Regional MCS Strategy will have positive impacts on both the sustainability of key fisheries and on the economic returns for the Pacific island States.

Successful implementation of the various new economic and management strategies all depend upon Pacific island States protecting their offshore sovereign rights over their various and extensive maritime areas. While this is likely to require some sharing of benefits and costs to make it attractive to all parties, the increased value in the fishery should ensure increased benefit to all stakeholders beyond any short term small gain from a go-it-alone strategy. Achieving success in this context will require pragmatic regionalism and the development of collective environmental and economic goals.

⁹¹ The authors note the strong progress achieved by the GEF funded Pacific Islands Oceanic Fisheries Management Project and its regional programmes. The authors suggest that similar focus and energy could also be directed at in-country national capacity building strategies that focus more heavily on national interests, within the umbrella of shared regional visions.

Bibliography

Anthony, J.M. “Conflict Over Natural Resources in the Pacific” in Ghee, L.T. and Valencia, M.J. (eds) *Conflict Over Natural Resources in Southeast Asia and the Pacific*, Oxford University Press, Oxford, United Nations University Press, 1990.

Arico, S. and Salpin, C. “*Bioprospecting of Genetic Resources in the Deep Seabed: Scientific, Legal and Policy Aspects*”. UNU-IAS Report. United Nations University, 2005, pp. 25-25, available at www.ias.unu.edu/binaries2/DeepSeabed.pdf

Cartwright, I. and Willock, A. *Oceania’s Birthright: The Role of Rights-Based Management in Tuna Fisheries of the Western and Central Pacific*, Paper presented to the FishRights 99 Conference, Perth, Australia, 11-19 November, 1999.

Cook, P.J. and Carleton, C.M. (eds) *Continental Shelf Limits, the Scientific and Legal Interface*, Oxford University Press, New York, 2000.

Cordonnery, Laurence. 2000. “A Note on the 2000 Convention for the Conservation and Management of Tuna in the Western and Central Pacific Ocean.” *Ocean Development and International Law Vol. 33. No. 1 January 2002*.

Cozens, P. *Pacific Islands Security: Emerging Issues and Concerns*. Paper presented at the Asia-Pacific Roundtable, Kuala Lumpur, 7 June 2007.

Cozens, P. and Mossop, J. (eds) *Engaging Oceania with Pacific Asia*, Wellington, Centre for Strategic Studies, New Zealand, 2004.

Churchill, R. and Lowe, A. *The Law of the Sea*, 3rd Edition, Manchester University Press, Manchester, 1999, p. 162.

Gillet, R. *Pacific Island Countries Region’ in Review of the State of World Marine Resources*, FAO Fisheries Technical Paper 457, FAO, Rome, 2005, pp. 144-157.

Gillett, R., McCoy, M., Rodwell, L. and Tamate, J. *Tuna. A Key Economic Resource in the Pacific Island Countries*. A Report Prepared for the Asian Development Bank and the Forum Fisheries Agency, Honiara. 2001.

Hampton, J. *Tuna Fisheries and their Impacts in the Western and Central Pacific Ocean*, Secretariat of the Pacific Community, 2005,
<<http://www.spc.org.nc/artImpact%20of%20tuna%20fisheries.htm>>

Hanich, Q. and Tsamenyi, T. “Managing Fisheries and Corruption in the Pacific Islands Region” in *Marine Policy*, Vol. 33, 2009, pp. 386-392.

Van Santen, G. and Muller, P. *Working Apart or Together: The Case for a Common Approach to Management of Tuna Resources in the Exclusive Economic Zones of Pacific Island Countries*, Pacific Island States Discussion Paper Series (10), World Bank, Washington, 2000.

Kaye, S. M. *International Fisheries Management*, The Hague, Kluwer Law International, 2001.

Koh, T. Statement from Ambassador Tommy T.B. Koh of Singapore, a President of the Third United Nations Conference on the Law of the Sea, at the final session of the Conference at Montego Bay, Jamaica, on 11 December 1982. Further elaborated in Koh, T. T. B. 'A Constitution for the Oceans' in Nordquist, M. H. (ed) *United Nations Convention on the Law of the Sea 1982: A Commentary*, Nordrecht, Martinus Nijhoff Publishers, 1, 1985.

Macnab, R. “Submarine Elevations and Ridges: Wild Cards in the Poker Game of Article 76” in *Ocean Development and International Law*, Vol. 39, 2008, pp. 223-234.

McDorman, T. “The Role of the Commission on the Limits of the Continental Shelf: A Technical Body in a Political World” in *International Journal of Marine and Coastal Law*, Vol. 17, No. 3, 2002, pp. 301-324, at p. 307.

McDougal, M. S. and Burke, W. T. *The Public Order of the Oceans: A Contemporary International Law of the Sea*, Dordrecht, Martinus Nijhoff Publishers, 1985.

Mossop, J. “Protecting Marine Biodiversity on the Continental Shelf Beyond 200 Nautical Miles” in *Ocean Development and International Law*, No. 38, 2007, p. 285.

Petersen, E. ‘The catch in trading fishing access for foreign aid’ in *Marine Policy*, Vol. 27, 2003, pp. 219-228, at p.219

Prescott, J.R.V. and Schofield, C.H. *The Maritime Political Boundaries of the World*, Martinus Nijhoff Publishers, Leiden/Boston, 2005, p. 9.

Prescott, J.R.V. and Boyes, G. *Undelimited Maritime Boundaries in the Pacific Ocean Excluding the Asian Rim*, Maritime Briefing, Vol. 2, No. 8, 2000, International Boundaries Research Unit, Durham.

Reid, C. *Value of WCPO Tuna Fisheries*, Pacific Islands Forum Fisheries Agency, Honiara, 2007.

Schofield, C.H. and Arsana, I.M.A. “Beyond the Limits? Outer Continental Shelf Opportunities and Challenges in East and Southeast Asia” in *Contemporary Southeast Asia*, Vol. 31, No. 1, 2009, pp.28-63.

Schurman, R. “Tuna Dreams: Resource Nationalism and the Pacific Island’s Tuna Industry” in *Development and Change*, Vol. 29, 1998, pp. 107-136, at p. 107.

SOPAC, “Race Against Time as the Deadline to claim Extra Seabed Resources draws closer”, Oceans and Islands Programme, Pacific Islands Applied Geoscience Commission (SOPAC), available at, <http://www.sopac.org/tiki-index.php?page=Extended+Continental+Shelf+Activities>

Stokke, 1991. “Transnational Fishing: Japan's Changing Strategy” in *Marine Policy*, No. 15, pp. 231-243.

Tarte, S. “Negotiating a Tuna Management Regime for the Western and Central Pacific: The MHLIC Process 1994-1999” in *The Journal of Pacific History*, Vol. 34, No. 3, 1999, pp. 273-280.

Tarte, S. “A Duty to Cooperate: Building a Regional Regime for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific” in *Ocean Yearbook*, Vol. 16, University of Chicago Press, Chicago, 2002, pp. 261-299.

Tsamenyi, B.M. and Manarangi-Trott, L. “The Role of Regional Organizations in Meeting LOS Convention Challenges: The Western and Central Pacific Experience” in Elferink, A.G.O. and Rothwell, D.R. (eds) *Oceans Management in the 21st Century: Institutional Frameworks and Responses*, The Hague, Kluwer, 2004, pp. 187-208.

Tsamenyi, M. “The Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America: The Final Chapter in United States Tuna Policy” in *Brooklyn Journal of International Law*, Vol. 15, 1989, pp. 183-222.

United Nations, *Status of the United Nations Convention on the Law of the Sea, of the Agreement Relating to the Implementation of Part XI of the Convention and of the Agreement for the Implementation of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, United Nations, New York, updated to 4 June 2008, available at http://www.un.org/Depts/los/reference_files/status2008.pdf

United Nations Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, ‘*Table of Claims to Maritime Jurisdiction*’ 2008, at

http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/table_summary_of_claims.pdf

United Nations, *United Nations Conventions on the Law of the Sea*, Publication No. E97.V10. United Nations, New York, 1983. Available at: http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm

United Nations “*An Update on Marine Genetic Resources: Scientific Research, Commercial Uses and a Database on Marine Bioprospecting*”. United Nations Informal Consultative Process on Oceans and the Law of the Sea Eight Meeting New York, 25-29 June 2007.

Van Dyke, J.M. “Regionalism, Fisheries and Environmental Challenges in the Pacific” in *San Diego International Law Journal*, Vol. 6, No. 1, 2004, 143-178.

Williams, P. and Terawasi, P. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, including Economic Conditions – 2007*. Paper presented to the Fourth Regular Session of the Scientific Committee of the Western and Central Pacific Fisheries Commission, 11-22 August 2008, Port Moresby, Papua New Guinea, WCPFC-SC4-2008/GN WP-1.

Wolfers, E.P. “The Law of the Sea in the South Pacific” in Crawford, J. and Rothwell, D. (eds) *The Law of the Sea in the Asian Pacific Region*, Kluwer, The Hague, 1995, pp. 41-49, at pp. 41-46.

Treaties

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, United Nations, 1995.

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Available at, <http://www.wcpfc.int/>

Convention on the Territorial Sea and Contiguous Zone, opened for signature 29 April 1958, 516 UNTS 205 (entered into force 10 September 1964)

Convention on the Continental Shelf, opened for signature 29 April 1958, 499 UNTS 311 (entered into force 10 June 1964)

Convention on the High Seas, opened for signature 29 April 1958, 450 UNTS 11 (entered into force 30 September 1962)

Convention on Fishing and Conservation of the Living Resources of the High Sea, opened for signature 29 April 1958, 559 UNTS 285 (entered into force 20 March 1966).

Treaty Between Malaysia and the Republic of Indonesia Relating to the Legal Regime of Archipelagic State and the Rights of Malaysia in the Territorial Sea and Archipelagic Waters as well as in the Airspace above the Territorial Sea, Archipelagic Waters and the Territory of the Republic of Indonesia Lying Between East and West Malaysia, signed 25 February 1982, entered into force 25 May 1984. Full text: United Nations Office for Ocean Affairs and the Law of the Sea, *The Law of the Sea: Practice of Archipelagic States*, United Nations, New York, 1992, pp. 144-155.

Submissions and Decisions (in chronological order)

New Zealand Submission to the Commission on the Limits of the Continental Shelf pursuant to article 76(8) of the United Nations Convention on the Law of the Sea. Executive Summary. 19 April 2006, available at, http://www.un.org/Depts/los/clcs_new/submissions_files/nzl06/nzl_exec_sum.pdf

Recommendations of the Commission of 22 August 2008, p. 42. Available at, http://www.un.org/Depts/los/clcs_new/submissions_files/nzl06/nzl_summary_of_recommendations.pdf

Continental Shelf Submission of Indonesia: Partial Submission in respect of the area of North West of Sumatra, Executive Summary. 16 June 2008, available at http://www.un.org/depts/los/clcs_new/submissions_files/submission_idn.htm

Japan's Submission to the Commission on the Limits of the Continental Shelf, Executive Summary. 12 November 2008. available at, http://www.un.org/Depts/los/clcs_new/submissions_files/submission_jpn.htm

Submission by the Cook Islands to the Commission on the Limits of the Continental Shelf Concerning the Manihiki Plateau. Executive Summary, April 2009, available at, http://www.un.org/Depts/los/clcs_new/submissions_files/cok23_09/cok_2009_executive_summary.pdf

A Partial Submission by The Republic of the Fiji Islands for the Establishment of the Outer Limits of the Continental Shelf of Fiji Pursuant to Article 76, Paragraph 8 of the United Nations Convention on the Law of the Sea. Executive Summary, April 2009, available at http://www.un.org/Depts/los/clcs_new/submissions_files/fji24_09/fji_2009execsummary.pdf

A Partial Submission of Data and Information on the Outer Limits of the Continental Shelf of the Kingdom of Tonga Pursuant to Part VI of and Annex II to the United Nations Convention on the Law of the Sea, Executive Summary. 11 May 2009, available at, http://www.un.org/depts/los/clcs_new/submissions_files/submission_ton_46_2_009.htm

Joint Submission to the Commission on the Limits of the Continental Shelf concerning the Ontong Java Plateau by the Federated States of Micronesia, Papua New Guinea and the Solomon Islands, Executive Summary. 5 May 2009, available at, http://www.un.org/Depts/los/clcs_new/submissions_files/submission_fmgsb_32_2009.htm

Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76 of the Nations Convention on the Law of the Sea, Executive Summary. 8 May 2009, available at http://www.un.org/depts/los/clcs_new/submissions_files/submission_plw_41_2_009.htm

Decision of the eighteenth Meeting of State Parties, SPLOS/183 at http://www.un.org/Depts/los/meeting_states_parties/SPLOS_documents.htm

2. Fisheries Subsidies Negotiations under the WTO and Likely Policy Implications for the Pacific Island Countries

Vina Ram-Bidesi

Introduction

It is well known that Pacific Islands Countries (PICs) are heavily reliant on fish and fisheries products as a source of livelihood, food and foreign exchange. Fish and fishery products are one of the major traded food commodities and this trade is likely to increase in the future to meet the ever increasing demand for fish and seafood.¹ The relationship between international fish trade, fisheries management and sustainable development is intrinsically intertwined.² While the main aspects of this interdependence can be conceptualised, it however poses a major challenge for legal practitioners and policy makers when dealing with cross-disciplinary issues relating to fisheries management, subsidies and trade. Thus there is the need for an integrated and interdisciplinary approach when formulating fisheries policies whether it is at an international, regional, national or local level.

Expanding fish exports is seen to generate significant benefits and economic growth to the exporting country. However, this can simultaneously give rise to problems such as economic pressure to harvest fish unsustainably, or excessive investment in fishing capacity which in turn can lead to overfishing and depletion of stock on which the communities depend upon for their nutrition and livelihood. On the other hand, there is a growing interest in the potential synergistic relationship between trade rules, conservation and sustainable development objectives such as in relation to eco-labelling, reduction in subsidies and use of trade measures to promote more sustainable fisheries. Trade measures are seen as a more powerful enforcement mechanism for fisheries management because of the World Trade Organisation's (WTO's) rules-based system.

Defining the scope and breath of harmful fisheries subsidies has been a central aspect of the WTO negotiations.³ A subsidy is a government expenditure that makes a resource cheaper to produce than its full economic cost or makes a product cheaper to consumers. Subsidy payments and transfers are important policy tools used by governments to support an economic sector (institution, business or industry), with the aim of promoting an activity within it, which the

¹ Food and Agriculture Organisation, *The State of World Fisheries and Aquaculture (2006)*. 2007, p.136.

² Deere (2000) further explores this link in *Net Gains: Linking Fisheries Management, International Trade and Sustainable Development*.

³ International Centre for Sustainable Trade and Development (ICSTD) 2006, p. 62.

government considers beneficial to the economy and society. In the context of fishing, subsidies are provided to lower the cost of fishing or to increase revenues, or both; such as budgetary assistance, tax exemptions, lower interest rates, grants and price support schemes.⁴ Some subsidies are applied directly to boost production and help secure profits and encourage export growth, while others are targeted at improving efficiency and the scale of production.

Over the years, subsidies have helped in the development of fishing industries to achieve their social and economic objectives. However, the high estimate of global subsidies⁵ in the fisheries sector has raised concerns on their role in exacerbating the decline in marine resources driven by the increase in demand for fish together with advances in technology. These have contributed to overcapacity and overfishing that not only depletes fish resources but also distorts the price of fish, hence its market and trade. Critics argue that subsidies contradict efforts to liberalise trade and undermine development potential that can be unleashed by properly-managed fisheries.⁶ Despite such concerns, some subsidies continue to remain important in achieving public policy objectives.⁷

This chapter outlines some key aspects of fisheries subsidy negotiations at the WTO so far and analyses their possible implications for Pacific Island fisheries. First, a brief background to the subsidies debate is outlined followed by a discussion on the first draft text proposed by the Chair of the Negotiating Group on Rules and how the provisions may influence the Pacific Islands fisheries sector policies. The chapter then makes some possible suggestions on the approaches that Pacific Island countries could use when discussions on fisheries subsidies resume. While formal discussions on new subsidies rules are suspended and therefore the final outcome is not clear, the chapter nevertheless makes some preliminary assessment on the challenges it is likely to pose for legal and policy personnel dealing with the fisheries sector issues.

Subsidies Rules at the WTO

The WTO Agreement on Subsidies and Countervailing Measures (ASCM Agreement) disciplines the use of subsidies by regulating the actions countries can take to counter the effects of subsidies. Under the WTO Agreement, a country can use the WTO's dispute settlement procedure to seek withdrawal of the subsidy or the removal of its adverse effects. A country can also carry out its own

⁴ For example, see Westlund, 2004.

⁵ Milazzo, 1998; Westlund, 2004; Sumaila and Pauley, 2006.

⁶ ICSTD, 2006, p. 62.

⁷ Yu, V.P. and Fonseca, D. 2005.

investigation and ultimately charge extra duty “countervailing duty” on subsidized imports if they are found to hurt domestic producers.⁸

There have been a number of arguments by certain member countries, international agencies, non-government organisations (NGOs) and researchers that the current WTO subsidy rules cannot effectively regulate the impacts of fisheries subsidies on trade and have therefore put pressure within the WTO to expand, clarify and develop new rules on fisheries subsidies.⁹ Under the Agreement on Subsidies and Countervailing Measures (ASCM), fisheries subsidies are difficult to target as actionable because they are largely granted at the production level which causes production distortion while ASCM targets subsidies that cause trade distortion. It is therefore difficult to prove “adverse effects” to allow the subsidy to be punished under the WTO rules.¹⁰

The mandate in paragraphs 28 and 31 of the Doha Declaration states that members are to “clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of the sector to developing countries ... with a view to enhance the mutual supportiveness of trade and environment.”¹¹ In addition to this, members reaffirmed their commitment to strengthen the rules on fisheries subsidies at the Sixth Ministerial Conference in Hong Kong in 2005. Members agreed to prohibit subsidies that contribute to overfishing and overcapacity, improve transparency in reporting and strengthen the enforceability of rules. Members also agreed to address the importance of the sector to development priorities including reduction in poverty, food security and improved livelihood.¹²

Agreement on Subsidies and Countervailing Measures

The ASCM defines subsidies as any financial contribution provided by government that confers a benefit to a “specific” domestic industry.¹³ A financial contribution can be provided directly by the government or a public or private entity on behalf of the government such as direct payment, goods and services, price support, income support or foregone revenues.¹⁴ Under ASCM, subsidies are divided into three categories: prohibited, actionable and non-actionable. Prohibited subsidies are those that directly affect trade such as those that promote exports

⁸ On 31 July 2008, the Subsidies Committee elected Members of a Permanent Group of Experts to assist in Dispute Panel and provide expert advisory services on issues relating to Subsidies.

⁹ For example, see: Schorr 1998; WWF 1997; OECD 2003; Schorr 2004.

¹⁰ Campling, L., Havice, E. and Ram-Bidesi, V. 2007 – outline some of the difficulties associated with implementing ASCM to discipline fisheries subsidies.

¹¹ Paragraph 28 and 31 of the Doha Ministerial Declaration 2001. WT/MIN (01)/Dec 1 (November 20, 2001).

¹² WTO Ministerial Declaration, WT/MIN(05) DEC: D-2 para 9.

¹³ ASCM- Article 1.

¹⁴ ASCM – Article 1.

(export subsidy) or those that restrict imports (use of domestic goods). Actionable subsidies must show proof of having an adverse effect. The subsidizing government is required to pay for the loss incurred by the member that lodges the complaint but can continue with the subsidy. This means that harmful actionable subsidies may continue to persist even if action is taken against at the WTO.¹⁵ The third category of subsidies are non-actionable or permitted and include such things as research activities, assistance to disadvantaged regions and assistance to adapt to new environmental requirements.¹⁶

Progress on the Fisheries Subsidies Negotiations

The initial discussion on fisheries subsidies began at the WTO's Committee on Trade and Environment (CTE) in 1994 and gradually progressed into the Rules Negotiating Group. A number of proposals on new fisheries subsidies disciplines focusing on a diverse range of issues have been presented since then. Among the key issues include the structure and definitions, treatment of access agreements, exemptions to artisanal and small-scale fisheries, nature and extent of special and differential treatment for developing countries and environment management and conservation.

A coalition group called the "Friends of Fish"¹⁷ lobbied within the CTE to include discussions on fisheries subsidies, overcapacity and overfishing. Their submissions were essentially labelled as the "broad ban approach."¹⁸ On the other hand, another group of Asian countries¹⁹ argued that WTO was not the right forum to deal with fisheries resource sustainability issues. Their main concern was that fisheries management issues and illegal, unreported and unregulated (IUU) fishing was outside the competence of WTO. This group's submissions have been labelled as the "positive list" approach.²⁰ Since 2004, as discussions progressed on subsidies, this latter group has raised some key issues that target harmful subsidies.²¹

The European Union (EU) initially took a middle-ground on subsidies issues. By the end of 2006, EU's approach to subsidies issues were more in line with that of

¹⁵ Campling, L., Havice, E. and Ram-Bidesi, V. 2007, p. 107.

¹⁶ Under the ASCM, the provisions for permitted subsidies expired in 1999.

¹⁷ Australia, Ecuador, Iceland, New Zealand, Norway, Peru, Philippines and USA.

¹⁸ For example see: TN/RL/GEN/141 2006; TN/RL/GEN/127 2006; TN/RL/GEN/100 2006; TN/RL/W/164 2004; TN/RL/W/154 2004; TN/WT/CTE/W/204 2002.

¹⁹ Japan, South Korea and Taiwan (Chinese Taipei).

²⁰ 'Broad ban' – prohibit all subsidies except for those under the green box (applied for conservation) as opposed to 'positive list' – allows all subsidies and prohibit those that increase fishing capacity. [For a more detailed discussion – refer to Campling, L., Havice, E. and Ram-Bidesi, V. 2007, Part II].

²¹ For example see: TN/RL/GEN/114/Rev.1 2006; TN/RL/W 172 2005; TN/RL/W/159 2004; TN/RL/W/164 2004.

Japan, Korea and Chinese Taipei. The proposals to the WTO from small vulnerable economies (SVEs)²² including the Pacific Island members argued that the fisheries sector is important for their economies as stated in the Doha Development Agenda and that access agreements and small-scale fisheries should be exempt from the subsidies rules.

From 2004 onwards, Brazil also took an active part in the negotiations.²³ Brazil submitted a number of proposals that accelerated the progress in negotiations, particularly focusing on special and differential treatment (S&DT) provisions. The various submissions by the members have thus helped to shape the draft text released by the Chair of Negotiating Group on Rules.

Proposed Chair's Draft Legal Text on New Rules

In releasing the draft text in November 2007, the chair of the Negotiating Group on Rules requested members to identify their interests while accommodating the interests and concerns of other members to seek a balance in moving forward the negotiations. The draft text on fisheries subsidies is to be appended as Annex VIII of the ASCM.²⁴ In the chair's draft text, government to government payments of access to marine fisheries are not considered as subsidies and therefore non-actionable. Article 1 provides a detailed list of prohibited subsidies while Article II outlines the general exceptions. These are briefly summarized in Table 1.

²² For example see: TN/RL/GEN/57/Rev.1 2005; TN/RL/GEN/57Rev.2 2005; TN/RL/W/136 2003.

²³ For example see: TN/RL/GEN/79/Rev 3 2006; TN/RL/W/176 2005; TN/RL/GEN/79 2005; TN/RL/GEN/56 2005.

²⁴ TN/RL/W/213 2007.

Table 1: Proposed Prohibited and Permitted Subsidies in the Draft Chair’s Text

	Goods and Services benefits relating to:
Prohibited Subsidies	Acquisition, construction, repair, renewal, renovation, modernization and boat building
	Transfer of fishing or service vessels to third countries
	Operating costs of fishing - license fees, fuel, ice, bait, personnel, insurance and gear support, at-sea support, handling in- or near-port processing, covering operating losses
	Port infrastructure – landing facilities, fish storage facilities, in-or near-port processing facilities
	Income support, price support
	Transfer of access rights by government in another member’s jurisdiction
	Vessels engaged in illegal, unreported or unregulated fishing
	Vessels and fishing activity affecting fish stocks in “unequivocally overfished” condition
Permitted Subsidies	Improving crew safety without increase vessel capacity
	Adoption of selective fishing techniques
	Adoption of techniques to reduce environmental impact of fishing
	Compliance with fisheries management regime for sustainable use and conservation – eg VMS
	Re-education, retraining or redeployment of fishworkers into non-fishing occupations
	Early retirement or permanent cessation of employment of fishworkers to reduce capacity or effort
	Vessel decommissioning or capacity reduction provided vessels are scrapped or permanently prevented from being used for fishing elsewhere; fish harvesting rights are permanently revoked; relinquish any claim associated with vessel or harvesting rights.

Special and Differential Treatment (S&DT) Provisions

Under Article II of the proposed rules, the least-developed countries (LDCs) are exempt from the use of prohibited subsidies. Non-LDC countries are allowed to provide prohibited subsidies to fisheries in inshore areas (i.e. territorial waters) that are characterised by non-mechanised fishing methods, and carried out by individuals, family members or group organised in associations. The catch is to be consumed by fishworkers and their family members and that fishing activities do not go beyond a small profit. In addition, fisheries management measures should be in place to ensure sustainability.

Developing country members are also allowed to provide construction-related subsidies that are otherwise prohibited for developed countries. These include port infrastructure, fish landing facilities, fish storage facilities, and in-or near-port processing facilities. They are also allowed to provide income support and price

support but these provisions are subject to having an effective fisheries management system based on internationally-recognised best practices described in the various international agreements under the Food and Agriculture Organisation (FAO).

Under the proposed rules, prohibited subsidies such as those for boat building, repairs, and to meet operating costs like fuel, ice, bait, insurance and gear, are also allowed for developing country members for undecked vessels and decked vessels that are less than 10 metres or 43 feet in length.

Developing member countries are also allowed prohibited subsidies for vessels construction, repair and modernisation of vessels greater than 10 metres provided that such vessels are able to satisfy a list of management-related criteria to reduce the risk of overcapacity in fishing. These criteria include fishing exclusively for identified target stocks within the member's exclusive economic zone (EEZ), that the fish stocks have been subject to prior scientific assessment to ensure their capacity does not exceed beyond sustainable level and that assessment has to be subjected to peer review by a competent international organisation such as the FAO.

Likewise, under the S&DT provisions for developing countries, payments made from one government to another and then transferred to an external third party (such as an industry) are permitted subsidies if the fishery is conducted within the developing country member's EEZ and the access agreement is made public and has provisions designed to prevent overfishing based on internationally recognized best practices for management and conservation.

Other Provisions

Article V of the draft text details the requirements for an effective fisheries management regime that reflects internationally recognised best practices among which include the United Nations Fish Stocks Agreement (1995), the Code of Conduct for Responsible Fisheries (1995) and the Compliance Agreement (1995), technical guidelines and plans of action.²⁵ The incorporation of such fisheries instruments into national legislation and policy is aimed to ensure the use of science-based stock assessment, capacity and effort management based on allocation of fishing rights or quotas, a vessel monitoring system including observers on board and a system of timely reporting to national and international authorities. These are likely to have direct influence on the fisheries law and policy because they may require changes to domestic legislation, including changes to administrative and judicial enforcement mechanisms. Developing

²⁵ FAO Code of Conduct for Responsible Fisheries (1995); Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (1995).

country members can implement and operate the fisheries management measures at a regional level provided they fulfil their individual obligations for the regionally agreed management requirements.

In addition, each member country has to maintain an enquiry point to answer queries in relation to the fisheries management system including measures in place to address fishing capacity, effort and biological status of fisheries in question. Article VI outlines the notification requirements among which includes such things as notifying the ASCM committee the terms of fisheries access agreement and reporting on any applicable domestic fisheries legislation. Article VIII implies that any subsidies that are not notified would be deemed prohibited and thus vulnerable to litigation. The subsidising member has to demonstrate that the subsidy in question is not prohibited. On compliance and implementation of the rules, Article III (4) recognises the need for technical assistance for developing countries either bilaterally and/or through appropriate international organisations.

Reaction to the Chair's Draft Rules

WTO members discussed the chair's draft text during the Negotiating Group on Rules meetings that started in December 2007 and officially suspended in July 2008 when trade talks on the Doha Round came to a halt. The text bans several types of subsidy payments that enhance fishing capacity or create incentives to increase fishing. The text attempts to bridge the two broad views in the negotiations between the proponents of "top-down" blanket ban on fisheries subsidies (with negotiated exceptions), and those that support a "bottom-up" ban on specific kinds of subsidies. Developing countries are allowed to maintain a number of subsidies that are otherwise banned so as to assist in the development of their fishing industries to meet their economic and social objectives. However, all such subsidy payments are subject to having an effective fisheries management system in place. India questioned the conditionality imposed to qualify for S&DT while China and Brazil described the text as being both too rigid and overly burdensome.²⁶ Japan, Korea and Chinese Taipei argued that prohibition of subsidies for port infrastructure, operating costs and near-port fish processing had little effect on overcapacity.²⁷ Australia and New Zealand together with environmental groups like WWF and Oceania see the draft text as constructive because of the incorporation of environmental provisions. The Pacific Island members together with the African, Caribbean and the Pacific (ACP) welcomed the exemptions relating to access agreements. A particular concern to many developed and developing countries alike is the prohibition on fuel subsidies which they argue would deprive their fishers of their livelihood by making it

²⁶ ICTSD, <http://www.ictsd.org/biores/07-12-18>. Bridges Trade BioRes Vol. 7, No. 22, p. 2.

²⁷ ICTSD, <http://www.ictsd.org/biores/07-12-18>. Bridges Trade BioRes Vol. 7, No. 22, p. 2.

impossible for them to continue fishing, while there are some member countries who argue that if prohibition did not cover fuel subsidies, then any discipline on subsidies would be ineffective.²⁸

So far, discussions have focused on the treatment of small-scale fisheries, aspects of fisheries management and on the scope of the peer review mechanism for fisheries management measures. Norway submitted an amendment to the draft provision on fisheries management by distinguishing the legal and institutional aspect to that of practical implementation which calls for stock specific management plans. A number of countries found this to be rather burdensome and a costly proposal because of the difficulty in having stock-specific management plan for each fishery particularly in the small-scale and artisanal sector where scientific information is scant. WTO members remain divided on the conditions under which developing countries would be allowed to provide assistance to their fisheries sector.

On 28 May 2008, the chair issued a working document in the form of a matrix that summarized the core issues in negotiations, proposed chair's text in addressing them and the various positions of the members to the text.²⁹ Because of the many divergent views on key issues of the subsidies discussions, the Chair then circulated a new draft consolidated text in December 2008 which he termed as the "road map" in an attempt to reconcile the different approaches to disciplining fisheries subsidies.³⁰ The focus of the road map is to focus on regulating subsidies that contribute to overfishing and overcapacity while also formulating appropriate and effective S&DT to address concerns of developing member countries. Responses so far on the Chair's new road map reflect similar divides and sentiments. Small Vulnerable Economies (SVEs) together with some other developing country members say that the road map is more complex and prefer the initial draft text of the Chair as a better platform to move forward the discussions.³¹

Implications of Draft Rules for Pacific Islands Fisheries

Being designated as a LDC, the Solomon Islands will be exempt as a WTO member from the proposed draft rules on prohibited subsidies. The exemption is important given the limited capacity not only to subsidise but also to implement obligations under the new disciplines.³² The draft text does not clarify how the overcapacity issues in relation to straddling or migratory fish stocks will be dealt

²⁸ TN/RL/W/232 – Annex C.

²⁹ TN/RL/W/232 – Annex C.

³⁰ TN/RL/W/236.

³¹ Campling, L. FFA Trade Briefing, Vol 2, No.2, February 2009, p.1-2.

³² Sisilo, R. Fisheries: Access Fees gets the nod in the WTO Chair's Text, Island Business, January 2008.

with for the LDCs since they are exempt from the subsidy provisions of Article 1 of Annex VIII.³³

Fisheries access agreements such as the EU fisheries access agreements and the further transfer of EU fishing vessels are permitted since the agreement is government-to-government and is for access to a developing country EEZ.³⁴ This allows the PICs the legal basis for subsidised access agreements which has been an important policy concern for a number of smaller island countries.

In the rural coastal areas of the Pacific Islands where income and employment opportunities are limited, development assistance through infrastructural support, boat building, marketing and operating costs such as fuel and bait are common means to encourage the communities to move to cash economy to improve their livelihoods. The provisions under the Article III.2(a) only allows use of non-mechanised gear and fishing equipment, and where fishing operations are not to go beyond a small profit trade and there is no major employer-employee relationship to qualify for subsidies operating cost. This provision and the use of the terms require further clarification. The terms “small-profit trade” and “no major employer-employee relationship” need to be clarified in order to ensure that these do not exclude those fishers who use their savings to purchase additional vessels and employ other fishers from their communities, or those who do not have boat and gear and who provide labour to earn wages. This has been a common practice in many islands where only some coastal households may be owners of vessels and the means of production. This provision is restrictive since it does not adequately consider the transitional stage of fishers who progress from subsistence to artisanal to commercial where resources permit.

For developing countries, subsidies for boat building, acquisition, repair and operating costs are allowed for undecked vessels and decked vessels that are less than 10 metres. While most subsistence and artisanal fishing vessels are small-scale, important artisanal commercial fisheries rely on subsidised operating expenses such as fuel and bait. Two important fisheries that employ vessels that are larger than 10 metres and are either decked or partially decked are the Samoa alia, and the Papua New Guinea pump boats. Thus, Article III(b)(2) on S&DT poses a major constraint to the development and progress of these artisanal operations. This provision will also be restrictive in light of the need to divert fishing effort from over-exploited inshore coastal areas to more deep sea and offshore areas as one of the major initiatives to build local capacity for domestic development of tuna fisheries in the Pacific Islands.

³³ TN/RL/W/213: Article III.1 –Annex VIII.

³⁴ Campling, L. FFA Fisheries Trade Briefing, Vol. 1, No. 2, January 2008, p. 5.

Lobbying for an extension in the allowable length of decked vessels under this provision, the ACP and countries such as India, China and Indonesia have argued this should be extended to 24 metres instead of the 10 metre limit. However, this has been opposed by members such as the EU and the United States (US) who are pushing for more strict rules. There is also a possibility that expanding such provisions can also make larger developing countries more competitive, thereby affecting the export markets for Pacific Island countries which may lack the economies of scale that the larger developing countries may have. Campling (2008) suggests that an alternative capacity parameter should be sought if PICs want to satisfy their legitimate development needs while simultaneously not allowing the S&DT provisions as a means to avoid the rules.³⁵ Another option that could be explored would be to seek some kind of differentiation amongst the developing countries, such as distinguishing the SVEs from the rest of the developing countries. Creating the policy space for the progressive development of artisanal fishery would be an important objective in light of meeting the developmental needs of the Pacific Islands.³⁶

In the draft text, government can grant fishing access to individuals and groups as long as it does not affect straddling or highly migratory fish stocks of other member countries and affect stocks in which another member has identifiable fishing interests. Furthermore, in granting permissible subsidies, member's management practices and compliance-related information will have to be verified with relevant international organisations.³⁷

Limiting subsidies to vessels within a developing country member's EEZ implies that the exemptions granted will not be sufficient to achieve the economic viability of some of the vessel operations that require regional access beyond a member's EEZ. Fisheries that can be affected by this provision would be vessels seeking regional access, such as domestic vessels from Papua New Guinea that fish in Federated States of Micronesia (FSM) waters under the FSM Arrangement. The longline tuna fishery where vessels from Fiji fish in Vanuatu and Solomon Island waters and the initiative under-way to create a sub-regional arrangement for South Pacific Albacore fishery to gain access to each others' zones will be affected. The rationale for such arrangements has been to overcome the lack of economies of scale due to the small EEZs of members, as well as oceanographic and seasonal fluctuations affecting stock abundance. Therefore, the legal justification for the limitations within 200 mile EEZ is weak given the existence of bilateral and multilateral agreements and where fish stocks are straddling and high migratory.

³⁵ Campling, L. FFA Fisheries Trade Briefing, Vol. 1, No. 2, January 2008, p. 5.

³⁶ Campling, L., Havice, E. and Ram-Bidesi, V. 2007.

³⁷ Chair's Draft Text - Article IV.1 (a) & (b).

With the exception of subsistence fisheries under Article V.1, subsidies for developing countries are contingent upon satisfying a number of fisheries management measures. These include having a management system based on internationally recognised best practices such as the Code of Conduct, Compliance Agreement and the Fish Stocks Agreement. For example, subsidies relating to port infrastructure and other port facilities are permitted for developing countries, but are subject to strict environmental conditionality under Article V. The private sector in the Pacific Island countries is small and heavily reliant on government assistance for infrastructural support such as port construction and maintenance. Therefore any such restriction on infrastructure support is likely to affect the island communities' fisheries development initiatives.

The smallness of Pacific Island Countries also poses capacity constraints and underscores the need for technical assistance in meeting the environmental management requirements. Besides limitations on resources such as skilled personnel and budgetary constraints, there is also lack of quantitative data on coastal and inshore fisheries on which to base management decisions and to meet reporting requirements.

The role of regional fisheries management organisations (RFMOs) is exemplified in the draft text to ensure that subsidies granted do not undermine resource sustainability. Members can only grant subsidies provided they satisfy the national requirements relating to regional fisheries management obligations. A number of exemptions to developing countries relate to coastal fisheries which do not directly come under the Western and Central Pacific Fisheries Commission (WCPFC) as the designated RFMO for the Western and Central Pacific. It is not clear how this issue will be dealt with in the Pacific region and whether this will leave a gap when dealing with coastal inshore fisheries. Will it require expanding the scope of the WCPFC as a RFMO to deal with coastal fisheries or will it facilitate a mechanism for cooperation with the Secretariat for the Pacific Community that deals with coastal fisheries issues?

In all, the matrix captures the divergent comments of the various members on the chair's text. The Pacific delegation's key submissions summarised by Campling (2008) are also reflected in this matrix.³⁸

Possible Approaches by Pacific Island Countries

To ensure the flow of long-term sustainable benefits from their fisheries, the Pacific Island States would need to clearly define their current and future fisheries

³⁸ Campling, L. FFA Fisheries Trade Briefing, May 2008, p. 4.

development goals and objectives which in turn can help to identify the subsidies that are needed to achieve them. The impact of WTO subsidies discipline on PICs will need to be considered directly through their effect on domestic fisheries and through the impact of rules on their distant water partners fishing in the Western and Central Pacific region. Therefore, PICs will also need to consider the role played by domestic and foreign fisheries in their economies to meet their development aspirations and the subsidies that both may be able to use which will be beneficial to both parties.³⁹ Many of the current management efforts in the inshore fisheries focus on the strengthening of community based resource management systems. The importance of such policy tools must also be reflected in any sustainability criteria for coastal fisheries management.

Many PICs have attempted to define their fisheries development aspirations through their national tuna management plans and national fisheries sector plans and policies. Comprehensive and updated national fisheries policies can help define the policy positions of the countries which in turn can assist in any subsidies negotiation process and also in forming different regional or international alliances necessary to support the desired positions.

In particular, PICs can lobby for exemption of desirable subsidies that must be protected through the S&DT provisions. Although developing countries such as PICs do not currently have the budget to support all of the subsidies they would like to provide, S&DT provisions will allow them to protect their rights to use subsidies to develop their industries in the future.⁴⁰ On the other hand, if the S&DT provisions are wide-ranging and flexible, these may become more beneficial to large developing countries like China or Thailand by making them more competitive as opposed to small developing countries like the PICs. This can also have the potential to increase competitive pressure among the developed distant water fishing nations in the WCPFC region such as Japan and the US with, for example, the Chinese or Latin American vessels. PICs may also like to find other avenues to make the terms of S&DT for SVEs relatively more responsive to their economic development needs such as working closely with small island developing States or the ACP group.

In terms of the draft text, the specific areas that PICs may require more detailed analysis would be on the issue of identifying vessel length for the artisanal fishery that can accommodate the development aspirations of the domestic industry in PICs, but at the same time ensure that this does not create competition with larger developing country members. Secondly, there should also be some flexibility in granting subsidies to fishing operations beyond a member's EEZ such as those that

³⁹ Campling, L., Havice, E. and Ram-Bidesi, V. 2007.

⁴⁰ Campling, L., Havice, E. and Ram-Bidesi, V. 2007, p. 120.

have bilateral or multilateral arrangements to fish in another member's EEZ and where management and conservation conditions are effectively integrated into access agreements.

A key area emphasised in the draft text is resource management and conservation, and the potential role that could be played by RFMOs in ensuring that fishing activities are carried out in a sustainable manner and that there is no undue increase in fishing capacity. This is likely to increase the reporting requirements for the WCPFC on resource management issues in relation to whether a member can ultimately be granted subsidies. The complex reporting requirements will require additional capacity and resources which will need to be factored in during negotiations in the context of technical and development assistance in meeting the implementation and reporting requirements. One of the concerns that will need to be addressed is the ability and mandate of the WCPFC in dealing with other fish species and national inshore fisheries of artisanal commercial importance.

Since a summary of all different submissions exists, PICs could prepare their defense or support accordingly, as informal trade talks continue.

Fisheries Policy Trends – Issue of Sustainability

While overfishing and overcapacity could be due to many causes, there is a strong debate that these reflect an ineffective fisheries management regime – where there are “too many boats chasing too few fish” and that this problem cannot be solved without paying attention to subsidies which are a contributing factor. In addition, the WTO rules are also binding and therefore seen by many countries as playing an important role towards achieving the fisheries management objectives which in turn can provide long term gains from trade.

Achieving sustainable fisheries has been the centre of discussion for several country's submissions to the WTO. While the chair's consolidated draft text exempts certain subsidies, it does; however; require countries benefiting from waivers to operate effective fishery management systems to conserve fish stocks. The proposed sustainability criteria draws on the principles and concepts highlighted in the key international fisheries agreements such as the UN Code of Conduct for Responsible Fisheries and the UN Fish Stocks Agreement. The WCPFC therefore is well placed in attempting to implement a number of the key principles and practices for the conservation and management of highly migratory fish stocks in the Western and Central Pacific as required under the respective international fisheries instruments.

International fisheries instruments including the WCPF Convention also allow the use of trade-based measures for fisheries management and compliance such as

through the use of port State measures, vessel lists, and catch and trade documentation schemes. An example is the EU's intention to combat IUU through the establishment of a catch documentation scheme for all its imports by 2010.⁴¹

In the context of international fisheries policy trends, therefore, what is becoming apparent is the need for an effective fisheries management regime to solve both environmental and fisheries trade problems. This; however; puts greater pressure on developing countries which are at various stages of their fisheries development. While these countries recognise the need for sustainable fisheries, they also depend on the fisheries sector to generate economic growth and support community livelihoods which makes their policy decisions more complex.

One of the areas of focus for PICs should be to continue participation in forums that help to define the sustainability criteria within the context of WTO rules that are practical and enforceable in relation to their fisheries and one that can meet their developmental goals. This could perhaps link the special development needs of developing countries under the implementation requirements of both the international fisheries as well as the trade instruments. This will require a concerted effort by national fisheries managers, policy makers, legal practitioners and trade personnel to coordinate and cooperate to implement an integrated approach to deal with such cross-cutting issues such as environment, trade and economic development. National policies to strengthen institutional frameworks for fisheries management and trade development through inter-departmental and inter-sectoral linkages will be a necessary first step.

Concluding Comments

The subsidies negotiations present opportunities to develop and protect domestic development interests, and encourage sustainable fishing practices, while at the same time, integrate developing country trade interests into the WTO rules. However, the diverse nature of Pacific Islands with their different development goals and expectations makes the PIC WTO members' task more difficult in protecting a wide range of subsidies interests even of those Pacific Island States who are not signatories to the WTO. For example, some PICs rely on access agreements, while others focus on domestic development and for some the artisanal fisheries is more important. This will require cooperation and collaboration amongst PICs national fisheries, legal and trade officials, regional organisations and PIC's WTO representatives to identify regional positions. An integrated institutional policy framework is also necessary at the national level to incorporate the various issues in a coherent and systematic manner to address national policy goals and interests.

⁴¹ See for example, Campling, FFA Fisheries Trade Briefing – Vol.1, No. 11, October 2008, p. 2.

While the formal discussion on new fisheries subsidies rules is on hold and dependent on the completion of the Doha Round, there are a number of points of interest already emerging with regard to fisheries policy implications. First, it is important to recognise that having an effective fisheries management regime with an effective enforcement and monitoring system is central to both trade and sustainable fisheries development. Thus, implementing the resolutions and decisions of the WCPFC is essential if subsidies are to be granted for domestic commercial tuna fisheries development. There is also a need for greater recognition of the complementary roles of fisheries subsidies under the WTO and the fisheries management instruments and agreements.

Defining and elaborating on an appropriate sustainability criteria and the process of applying the criteria to the different fisheries in the region (subsistence, artisanal, commercial) is also an important factor that is likely to influence PICs fisheries policies. Staying informed and engaged in these issues is important for PIC members in order to be able to have any influence on the outcome of the subsidies negotiations so as to achieve their fisheries development needs and goals.

Bibliography

- Campling, L. *FFA Fisheries Trade Briefing*, Vol. 1, No. 2, January 2008.
- Campling, L. *FFA Fisheries Trade Briefing*, Vol. 1, No. 6, May 2008.
- Campling, L. *FFA Fisheries Trade Briefing*, Vol. 1, No. 11, October 2008.
- Campling, L. *FFA Fisheries Trade Briefing*, Vol. 2, No. 2, February 2009.
- Campling, L., Havice, E. and Ram-Bidesi, V. *Pacific Island Countries, The Global Tuna Industry and the International Trade Regime – A Guidebook*, The Forum Fisheries Agency, Honiara, Solomon Islands, 2007.
- Deere, C. *Net Gains: Linking Fisheries Management, International Trade and Sustainable Development*, The World Conservation Union, Washington, D.C. 2000.
- Food and Agriculture Organisation, *The State of World Fisheries and Aquaculture 2006*, The Food and Agriculture Organisation, Rome, 2007.
- ICSTD, *Fisheries International Trade and Sustainable Development: Policy Discussion Paper*, ICSTD Natural Resources, International Trade and Sustainable Development Series, International Centre for Trade and Sustainable Development, Geneva, Switzerland, 2006.
- ICTSD, Fisheries Subsidies Text Provides a Good Starting Point, Delegates Say, <http://www.ictsd.org/biores/07-12-18>. Bridges Trade BioRes Vol. 7, No. 22, p. 2. 18 December 2007.
- Milazzo, M. *Subsidies in World Fisheries: A Re-examination*, World Bank Technical Paper No. 406, World Bank, Washington D.C. USA, 1998.
- OECD, *Environmentally Harmful Subsidies: Policy Issues and Challenges*, OECD, Paris, 2003.
- Schorr, D. 'Towards Rational Disciplines on Subsidies to the Fisheries Sector: A Call for New International Rules and Mechanism' in *The Footprints of Distant Water Fleets on World Fisheries*, WWF International, Washington, D.C. 1998.

Schorr, D. 'Healthy Fisheries, Sustainable Trade, Crafting New Rules on Fisheries Subsidies' in the *WTO: WWF Position Paper and Technical Response*, WWF, Washington, D.C. 2004.

Sisilo, R. 'Fisheries: Access Fees gets the nod' in the WTO Chair's Text, *Island Business*, January 2008.

Sumaila, U. and Pauley, D. (eds.) *Catching More Bit: A Bottom-up Re-estimation of Global Fisheries Subsidies*, Fisheries Centre Research Reports, Vol. 14, No. 6, The Fisheries Centre, Vancouver, Canada, 2006.

Westlund, L. *Guide for Identifying, Assessing and Reporting on Subsidies in the Fisheries Sector*, Fisheries Technical Paper No. 438, FAO, Rome, Italy, 2004.

World Wildlife Fund (WWF), *Subsidies and Depletion of World Fisheries: Case Studies*. Endangered Seas Campaign, Washington, D.C. 1997.

Yu, V.P. and Fonseca, D. *Reflecting on Sustainable Development and Trade for Developing Countries in the Context of New WTO Fisheries Subsidies Rules: Some Issues and Options*, Economics and Trade Branch of the United Nations Environment Programme, Geneva, Switzerland, 2005.

World Trade Organisation Documents

TN/RL/GEN/100 2006, Fisheries Subsidies – Framework for Disciplines –Paper from New Zealand, 3 March 2006.

TN/RL/GEN/114/Rev.1 2006, Fisheries Subsidies: Framework for Disciplines – Communication from Japan, the Republic of Korea, and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, 2 June 2006.

TN/RL/GEN/127 2006, Fisheries Subsidies – Communication from the United States, 24 April 2006.

TN/RL/GEN/141 2006, Fisheries Subsidies Exhaustive List of Non-Prohibited Fisheries Subsidies – Paper from New Zealand, 6 June 2006.

TN/RL/GEN/56 2005, Contribution to the Discussion on the Framework for Disciplines on Fisheries Subsidies – Paper from Brazil, 30 June 2005.

TN/RL/GEN/57/Rev.1 2005, Fisheries Subsidies Disciplines Architecture on Fisheries Subsidies Disciplines – Paper from Fiji, Jamaica, Papua New Guinea and the Solomon Islands, 4 August 2005.

TN/RL/GEN/57Rev.2 2005, Fisheries Subsidies Disciplines – Architecture on Fisheries Subsidies Disciplines - Paper from Fiji, Jamaica, Papua New Guinea and the Solomon Islands- Revision, 13 September 2005.

TN/RL/GEN/79 2005, Further Contribution to the Discussion on the Disciplines on Fisheries Subsidies – Paper by Brazil, 16 November 2005.

TN/RL/GEN/79/Rev 3 2006, Possible Disciplines on Fisheries Subsidies – Paper from Brazil, 2 February 2006.

TN/RL/W 172 2005, Contribution to the Discussion on the Framework for the Fisheries Subsidies – Communication from Japan, the Republic of Korea, and the Separate Customs Territory of Penghu, Kinmen and Mastu, 22 February 2005.

TN/RL/W/136 2003, Fisheries Subsidies – Communication from Antigua and Barbuda, Belize, Fiji Islands, Guyana, The Maldives, Papua New Guinea, the Solomon Islands, St Kitts and Nevis, 14 July 2003.

TN/RL/W/154 2004, Fisheries Subsidies: Overcapacity and Over-exploitation – Communication from New Zealand, 26 April 2004.

TN/RL/W/159 2004, Fisheries Subsidies: Proposed Structure of the Discussion – Communication by Japan, 4 June 2004.

TN/RL/W/164 2004, Proposal on Fisheries – Paper by Japan, 27 September 2004.

TN/RL/W/164 2004, Proposal on Fisheries Subsidies –Paper by Japan, 27 September 2004.

TN/RL/W/176 2005, Contribution to the Discussion on the Framework for Disciplines on Fisheries Subsidies –Paper by Brazil, 31 March 2005.

TN/RL/W/213 2007, Draft Consolidated Chair’s Texts of Anti Dumping and Subsidies and Countervailing Measures Agreements, 30 November 2007.

TN/RL/W/232 2008, Working Document from the Chair-Annex C, 28 May 2008.

TN/RL/W/236 2008, New Draft Consolidated Chair Texts of the AD and SCM Agreements, 19 December 2008.

TN/WT/CTE/W/204 2002, Fisheries Subsidies – Submission from New Zealand on Paragraph 32 (i) of the Doha Declaration, 19 March 2002.

WTO 2001, Doha Declaration. WT/MIN (01)/DEC Geneva, Switzerland.

WTO 2005, Hong Kong Ministerial Declaration. WT/MIN(05)/DEC Geneva, Switzerland.

3. Combating IUU Fishing: International Legal Developments

Mary Ann Palma

Introduction

When the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) was adopted in 2001, the term illegal, unreported and unregulated fishing or “IUU fishing” instantly gained the attention of States, regional organisations, non-government organisations, and academic institutions. States have adopted national plans of action and specific regulations to address IUU fishing. At a much larger scale, regional fisheries management organisations (RFMOs) have adopted resolutions and conservation and management measures to address IUU fishing in their areas of competence. In these organisations, records of fishing vessels, IUU vessel lists, vessel monitoring systems (VMS), observer programmes, boarding and inspection schemes, trade documentation systems, and trade restrictive measures are being implemented. These RFMO measures are continuously setting the standards for fisheries compliance particularly on the high seas.

More recently, other international initiatives have been developed to address IUU fishing, including the initial process towards the adoption of a legally binding agreement on port State measures to combat IUU fishing, schemes to label legally-caught fish by individual States and independent entities, legislative measures to address IUU fishing, and cooperative measures outside the framework of RFMOs. These international developments in addressing IUU fishing are examined in this chapter.

The IPOA-IUU

The IPOA-IUU is the first international voluntary instrument formulated to specifically address IUU fishing.¹ Its objective is “to prevent, deter, and eliminate IUU fishing by providing States with comprehensive, effective, and transparent measures by which to act, including through appropriate regional fisheries management organisations, established in accordance with international law.”² The main components of the IPOA-IUU are the scope and nature of IUU fishing, the measures that may be adopted by States to address the problem, and the implementation of the international plan of action through RFMOs. The IPOA-IUU also recognises the special requirements of developing States in its implementation. In this regard, it requires the

¹ Food and Agriculture Organisation (FAO), *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU)*, Adopted on 23 June 2001 at the 120th Session of the FAO Council.

² *IPOA-IUU*, para. 8.

cooperation of States, Food and Agricultural Organisation (FAO), and international financial institutions to provide financial, technical and other assistance to developing States in order for them meet their requirements under the IPOA-IUU.³

The IPOA-IUU is considered a comprehensive “toolbox”, which has a full range of measures that can be used by flag States, port States, coastal States, and “market States” or States which engage in the international trade in fish to deal with various manifestations of IUU fishing within the jurisdiction of States and on the high seas.⁴ Such measures include the implementation of a fishing vessel registration and licensing system, maintenance of a record of fishing vessels, and implementation of a monitoring, control and surveillance (MCS) system, the requirement to provide an advanced notice of port entry, inspection of fishing vessels in port, denial of fish landing and transshipment in port, catch documentation schemes, and trade restrictions. Measures that cut across the responsibilities of flag, coastal, port, and market States are categorised under “All State Responsibilities”. These measures include the implementation of international instruments, development of national plans of action, cooperation among States, application of sanctions, and adoption of measures against IUU fishing by vessels without nationality and vessels flying the flags of non-cooperating States to RFMOs.

As a “toolbox,” the IPOA-IUU attempts to embrace all existing measures which States, acting alone, in cooperation with other States, or through RFMOs, may adopt to combat IUU fishing.⁵ A State should be able to find an appropriate tool or a combination of tools in the IPOA-IUU, to address any incident of IUU fishing.⁶ There are some overlaps in the application of these measures, although no contradictory measures can be found within the IPOA-IUU. Most of these measures are also addressed in other fisheries-related international instruments, on which the IPOA-IUU is based, such as the United Nations Convention on the Law of the Sea (LOSC),⁷ UN Fish Stocks Agreement,⁸ FAO Compliance Agreement,⁹ and the FAO Code of Conduct for Responsible Fisheries.¹⁰

³ *IPOA-IUU*, para. 85.

⁴ FAO, Fisheries Department, Implementation of the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing, *FAO Technical Guidelines for Responsible Fisheries No. 9*, FAO, Rome, 2002, para 16.

⁵ *FAO Technical Guidelines for Responsible Fisheries No. 9*, para 16.

⁶ *FAO Technical Guidelines for Responsible Fisheries No. 9*, para 16.

⁷ *United Nations Convention on the Law of the Sea, hereinafter referred to as LOSC*, Montego Bay, Jamaica, 04 December 1982.

⁸ UN, *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, 24 July - 04 August 1995.

⁹ FAO, *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, hereinafter referred to as FAO Compliance Agreement*, Adopted at the 27th Session of the FAO Conference, 24 November 1993.

¹⁰ FAO, *Code of Conduct for Responsible Fisheries, hereinafter referred to as FAO Code of Conduct*, Adopted at the 28th Session of the FAO Conference, Rome, Italy, 31 October 1995.

Paragraph 3 of the IPOA-IUU defines the scope and nature of each of the components of IUU fishing as:

- 3.1 Illegal fishing refers to activities:
 - 3.1.1 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;
 - 3.1.2 conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or
 - 3.1.3 in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.

- 3.2 Unreported fishing refers to fishing activities:
 - 3.2.1 which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
 - 3.2.2 undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.

- 3.3 Unregulated fishing refers to fishing activities:
 - 3.3.1 in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or

 - 3.3.2 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.

A closer look at the text of the IPOA-IUU reveals the lack of apparent connection between Part II on the nature and scope of IUU fishing and Part IV on the implementation of measures to combat IUU fishing. While Part II of the IPOA-IUU discusses the scope of each component of IUU fishing, reference is only made to the general term “IUU fishing” in Part IV. The IPOA-IUU does not specify which measures address illegal fishing, unreported fishing, or

unregulated fishing. By failing to provide a clear link between Parts II and IV, the IPOA-IUU may encourage States to adopt flag, coastal, port, market, and all State measures as part of their compliance with the international plan of action, without examining how the international definition of IUU fishing applies within a national context. This shortcoming is reflected in most national plans of action (NPOAs) adopted by States. A number of States have incorporated specific measures against IUU fishing in their NPOAs, but simply adopted the IUU fishing definition under paragraph 3 of the IPOA-IUU without indicating how the definition relates to the specific nature of fishing activities occurring within their jurisdiction or to vessels flying their flags and conducting fishing operations on the high seas and RFMO areas.¹¹ As a result, these NPOAs may have the tendency to become generic documents only with a list of measures, rather than a concrete plan of action targeting specific IUU fishing activities. It is reasonable to adopt a NPOA which is broad enough to cover a wide range of IUU fishing issues and measures; however, it is also necessary to identify priority IUU concerns which will be addressed by the NPOA, especially given the limited capacity of most States to simultaneously address all IUU fishing problems.

Despite some limitations of the IPOA-IUU, it can be considered as one of the most widely accepted non-binding instruments next to the FAO Code of Conduct as can be seen by the increasing adoption of IUU-related measures by States and regional organisations. By creating a non-binding instrument which embodies measures adopted in binding instruments, States are able to promote fisheries compliance, which has been largely hindered by the lack of ratification of some of the key international fisheries agreements. This also enables States to deal with IUU fishing activities in a more practical manner.

Developments in Addressing IUU Fishing

The IPOA-IUU not only reiterates fisheries management obligations found in binding agreements but further includes other obligations or fisheries management measures which may be difficult to incorporate in binding instruments. As the term IUU fishing has been more widely used, States and RFMOs have developed and adopted more stringent measures than those required under the IPOA-IUU. This section provides a discussion of the most recent developments in combating IUU fishing.

¹¹ See Kingdom of Tonga, *Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, September 2004; Ghana, *National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, June 2004; US, *National Plan of Action of the United States of America to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, coordinated by the U.S. Department of State in conjunction with the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, the U.S. Coast Guard, the Office of the U.S. Trade Representative, and the U.S. Customs Service, 20 February 2003; Republic of Korea, Ministry of Maritime Affairs and Fisheries, *Republic of Korea National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, no date; New Zealand, Ministry of Fisheries, *New Zealand Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unreported Fishing*, May 2004.

Listing of IUU Vessels

In addition to establishing a record of fishing vessels,¹² the IPOA-IUU encourages RFMOs to maintain a record of vessels engaged in IUU fishing.¹³ RFMOs such as the International Commission for the Conservation of Atlantic Tunas (ICCAT), Northeast Atlantic Fisheries Commission (NEAFC), Northwest Atlantic Fisheries Organisation (NAFO), Inter-American Tropical Tuna Commission (IATTC), Indian Ocean Tuna Commission (IOTC), and Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) have created IUU Vessel Lists for vessels flying the flags of Non-Contracting Parties which are published on their websites.¹⁴ Among these organisations, ICCAT, NEAFC, IOTC, and CCAMLR provide that fishing vessels flying the flag of a Non-Contracting Party sighted in their respective management areas are presumed to have carried out IUU fishing and are placed on a provisional IUU list.¹⁵ The flag States are required to demonstrate that their vessels sighted in the management areas of the RFMOs have not taken part of any IUU fishing activities or that effective action has already been taken in response to the IUU fishing activities in question.¹⁶ In order to be removed from the provisional IUU list, flag States have to prove that the vessel has changed ownership and that the previous owner no longer has any legal, financial or real interests in the vessel.¹⁷ Flag States also have to demonstrate that the vessel did not take part in IUU fishing activities, or that the vessel was only fishing for unregulated resources and has fulfilled all relevant obligations.¹⁸

While it is more common to include vessels flying the flags of Non-Contracting Parties (NCP) members in the RFMO IUU Vessels list, some RFMOs also

¹² Vessels found in the record of fishing vessels are deemed to be vessels entitled to fly the flag of a State and authorised to fish on the high seas.

¹³ *IPOA-IUU*, para. 81.4.

¹⁴ See for example: www.iccat.int/en/IUU.asp; www.nafo.int/fisheries/frames/fishery-iuu.html; www.iatct.org/VesselRegister/IUU.aspx?Lang=en; www.iotc.org/English/iuu/search.php; www.neafc.org/illegal; www.ccamlr.org/pu/E/sc/fish-monit/iuu-vess-list.htm.

¹⁵ ICCAT, *Recommendation by ICCAT to Establish a List of Vessels Presumed to have Carried out IUU Fishing Activities in the ICCAT Convention area*, 06-12, para. 1; NEAFC, *Non-Contracting Party Scheme*, no date, Art. 3(1); IOTC, *Resolution 06/01 on Establishing a List of Vessels Presumed to Have Carried Out IUU Fishing in the IOTC Area*, para. 1; CCAMLR, *Conservation Measure 10-07 (2006), Scheme to Promote Compliance by Non-Contracting Party Vessels with CCAMLR Conservation Measures*, para. 3.

¹⁶ ICCAT, *Recommendation by ICCAT to Establish a List of Vessels Presumed to have Carried out IUU Fishing Activities*, para. 1; NEAFC, *Non-Contracting Party Scheme*, Art. 3(1); IOTC, *Resolution 06/01 on Establishing a List of Vessels Presumed to Have Carried Out IUU Fishing*, para. 1; CCAMLR, *Scheme to Promote Compliance by Non-Contracting Party Vessels with CCAMLR Conservation Measures*, para. 3.

¹⁷ ICCAT, *Recommendation by ICCAT to Establish an IUU List*, para. 6; NEAFC *Non-Contracting Party Scheme*, Art. 9(3); IOTC *Resolution on Establishing IUU Vessel List*, para. 9; CCAMLR *Scheme to Promote Compliance by Non-Contracting Party Vessels*, para. 10.

¹⁸ ICCAT, *Recommendation by ICCAT to Establish an IUU List*, para. 6; NEAFC *Non-Contracting Party Scheme*, Art. 9(3); IOTC *Resolution on Establishing IUU Vessel List*, para. 9; CCAMLR *Scheme to Promote Compliance by Non-Contracting Party Vessels*, para. 10.

provide for a list of IUU vessels flagged by their Members.¹⁹ As an example, CCAMLR provides for an IUU list for vessels flying the flags of Contracting Parties or a CP-IUU Vessel List. A provisional CP-IUU Vessel List is created based on information provided by other Contracting Parties, trade statistics, and information gathered by port States.²⁰ This procedure is similar to that established for creating a NCP-IUU Vessel List under CCAMLR Conservation Measure 10-07 (2006).

Similar to other RFMOs, the Western and Central Pacific Fisheries Commission (WCPFC) has adopted Conservation and Management Measure (CMM) 2007-03 on the establishment of a list of vessels presumed to have carried out IUU fishing in the Western and Central Pacific Ocean (revision of CMM 2006-09).²¹ Paragraph 3 of the CMM 2007-03 provides that vessels fishing for species covered by the WCPFC Convention are presumed to have carried out IUU fishing activities if there is evidence that such vessels:

- a) harvest species covered by the WCPFC Convention in the Convention Area and are not either on the WCPFC Record of authorised vessels or a fishing vessel fishing exclusively in waters under their jurisdiction;
- b) conduct fishing activities in waters under the jurisdiction of a state, without permission of that State, or in contravention of its laws and regulations;
- c) do not record or report their catches made in the Convention Area as required by WCPFC measures in force, or make false reports;
- d) take and land undersized fish in contravention of WCPFC Conservation Measures;
- e) fish during closures in contravention of WCPFC Conservation Measures;
- f) use prohibited fishing gear in contravention of WCPFC Conservation Measures;
- g) transship with, participate in joint fishing operations with, support or re-supply vessels included in the IUU Vessel List;
- h) are without nationality and harvest species covered by the WCPFC Convention in the Convention Area;
- i) engage in fishing activities contrary to any other WCPFC Conservation Measures; or
- j) are under the control of the owner of any vessel on the WCPFC IUU Vessel List.

¹⁹ Most vessels included in current RFMO IUU Vessel Lists are flagged by non-contracting parties. As at January 2009, only IATTC, NEAFC and CCAMLR have included vessels of contracting parties in their IUU vessel lists.

²⁰ CCAMLR, Conservation Measure 10-06 (2006), *Scheme to Promote Compliance by Contracting Party Vessels with CCAMLR Conservation Measures*, paras. 2 and 3.

²¹ WCPFC, Conservation and Management Measure to Establish a List of Vessels Presumed to have carried out Illegal, Unreported and Unregulated Fishing Activities in the WCPO, Conservation and Management Measure 2007-03, 07 December 2007.

The same provision made reference to the IPOA-IUU as the basis of the definition or characterisation of IUU fishing in the CMM 2007-03. However, a closer look at the IPOA-IUU would suggest that paragraph 3(j) of CMM 2007-03 is not included within the scope of the international definition of IUU fishing.

The WCPFC CMM 2007-03 on IUU fishing was initially agreed unanimously by Members and Cooperating Non-Members of the Commission in 2006 without any substantive debate nor discussion of the policy rationale for paragraph 3(j).²² It can be argued that the implementation of paragraph 3(j) can be an effective tool in preventing and deterring IUU fishing by identifying beneficial owners of IUU vessels, encouraging corporate responsibility, and enabling States to take effective actions against their nationals as required under the IPOA-IUU.²³

However, the adoption of paragraph 3(j) of CMM 2007-03 has a number of implications. One, the listing of an entire fleet for the wrongdoing of one vessel under the same owner or controller seems to be too onerous, as well as inconsistent with other provisions of the same conservation and management measure, such as the application of equitable, transparent, and non-discriminatory measures. Two, extending the IUU list to vessels which have not committed IUU fishing but are associated with IUU vessels through ownership or control may not only prove to be a financial burden to a fishing company but will also affect the general economic situation of the flag State, particularly small island developing States with small fleets. Three, such criteria for IUU listing may encourage a quick transfer of ownership to avoid being on the IUU list. This will make it more difficult for the Commission to ascertain the beneficial ownership of vessels. Four, CMM 2007-03 is not clear on the process involved in reporting vessels which fall under the category of paragraph 3(j). Among the various RFMOs, only IATTC has a similar provision in its resolution on IUU listing. However, there has been no evidence to suggest that such provision has been implemented by the IATTC.

The Secretariat of the WCPFC has also highlighted a number of issues with respect to the implementation of paragraph 3(j) of CMM 2007-03. It maintains that placing an entire fleet in the WCPFC IUU Vessel List for the violation of one vessel in the fleet may be excessive and may over-burden the Commission in their implementation of CMM 2007-03. The concepts of control and ownership under the provision do not take into account the complexities of legal ownership and control of vessels, including beneficial ownership structures that may not be easily traceable. Paragraph 3(j) also has the potential

²² WCPFC, Technical and Compliance Committee (TCC), Fourth Regular Session, 2-7 October 2008, Pohnpei, Federated States of Micronesia; WCPFC, *Conservation and Management Measure 2007-03: Outstanding Issues from WCOFC4*, WCPFC-TCC4-2008/12, 29 August 2008, para. 7.

²³ WCPFC TCC, *Conservation and Management Measure 2007-03: Outstanding Issues from WCPFC4*, para. 8.

to permit the inclusion on the WCPFC IUU Vessel List of vessels that may not necessarily be fishing in the WCPFC Convention area.²⁴

The issue with respect to the implementation of paragraph 3(j) of CMM 2007-03 was raised by South Korea at the Fourth Regular Session of the Commission in 2007. Since then, there has been a lack of consensus among WCPFC Members on the matter. South Korea, with the support of other Members of the Commission, proposed the deletion of this provision²⁵ while other WCPFC Members support the implementation of paragraph 3(j), subject to further elaboration of practical guidelines, as a strong deterrent to IUU fishing.²⁶ It was agreed by the majority of the WCPFC Members and Cooperating Non-members at the Fourth Regular Session of the Technical Compliance Committee in October 2008 that the Commission will not apply paragraph 3(j) of CMM 2007-03 as a criterion for IUU listing in developing the Draft IUU Vessel List in 2009 and that additional procedures that will give effect to the provision would need to be developed for discussion at the next meeting of the WCPFC Technical and Compliance Committee.²⁷

Another issue associated with the WCPFC CMM 2007-03 is its implementation with respect to CMM 2004-01 on Record of Fishing Vessels and Authorisations to Fish. Under Article 24(4) of the WCPFC Convention and paragraph 4 of CMM 2004-01, each Member of the Commission is required to maintain a record of fishing vessels entitled to fly its flag and authorised to fish in the Convention Area beyond areas of national jurisdiction. The vessels in the national record are then submitted to the WCPFC for inclusion in the WCPFC Record of Fishing Vessels. Any vessel not included in the WCPFC Record of Fishing Vessels are deemed not authorised to fish for, retain on board, tranship or land highly migratory fish stocks in the Convention Area beyond the national jurisdiction of the flag State.²⁸ This prohibition implies that vessels not included in the WCPFC Record of Fishing Vessels are considered IUU fishing vessels, as substantiated by paragraph 3(a) of CMM 2007-03. The implementation of CMM 2004-01 and CMM 2007-03 could mean the establishment of two lists, a Record of Fishing Vessels or a White List, and an IUU List or a Black List, which may not necessarily complement each other. This also raises the question as to whether or not the implementation of CMM 2004-01 alone makes the CMM 2007-03 redundant.

²⁴ WCPFC TCC, *Conservation and Management Measure 2007-03: Outstanding Issues from WCPFC4*, para. 8.

²⁵ WCPFC, *Summary Report of the Fourth Regular Session*, Tumon, Guam, 3-7 December 2007, paras. 310 and 311.

²⁶ WCPFC TCC, Fourth Regular Session, Pohnpei, Federated States of Micronesia, 2-7 October 2008, *Summary Report*, para. 113.

²⁷ WCPFC TCC, *Summary Report of the Fourth Regular Session*, para. 115.

²⁸ WCPFC, Record of Fishing Vessels and Authorisation to Fish, *Conservation and Management Measure 2004-01*, 10 December 2004, para 12.

Other Forms of IUU Listing

There are other less formal initiatives aimed at “naming and shaming” IUU fishers by compiling and making available to the general public information about activities of IUU fishers.²⁹ These initiatives include the Watch List of the Coalition of Legal Toothfish Operators (COLTO),³⁰ the International Southern Oceans Longline Fisheries Information Clearing House (ISOFISH),³¹ and Greenpeace International.³² Although these measures are not provided under the IPOA-IUU nor conducted directly by States, they nevertheless encourage States to take measures against IUU vessels included in the lists. Through the campaigns of these organisations, governments have taken actions to curb IUU fishing and IUU fishers have been discouraged to engage in such activities.³³

Adoption of a Legally-Binding Agreement on Port State Measures

Under the IPOA-IUU, port States are encouraged to cooperate bilaterally, multilaterally, or within RFMOs in developing harmonised measures for port State control of fishing vessels,³⁴ similar to port State agreements which were adopted to trace substandard vessels.³⁵ A Model Scheme on Port State Measures to Combat IUU Fishing was adopted by the FAO in 2005 which outlines principles and guidelines to be used by States as a reference for the negotiation and adoption of measures at the national level, regional memoranda of understanding (MOUs), and resolutions within RFMOs.³⁶ The FAO Model Scheme provides guidelines for carrying out inspections of foreign vessels in ports, a list of information that should be provided by vessels in advance to port States, expected results from port inspections, training of port inspectors, and a proposed information system among port States.³⁷ The scheme conforms to the measures adopted under the IPOA-IUU and all relevant rules of international law.

²⁹ High Seas Task Force, “How to Get Better Information About High Seas Fishing Vessels,” *Presented at the Meeting of the High Seas Task Force*, Paris, France, 09 March 2005, Annex page 3.

³⁰ Coalition for Legal Toothfish Operators (COLTO) Website, *Toothfish Vessels*, www.colto.org. Accessed on 28 December 2008.

³¹ See High Seas Task Force, *How to Get Better Information About High Seas Fishing Vessels*, Annex page 3.

³² See Greenpeace International Website, *Blacklist*, <http://blacklist.greenpeace.org/>. Accessed on 28 December 2008.

³³ See Fallon, L. D. and Kriwoken, L. K. “International Influence of an Australian Nongovernment Organisation in the Protection of Patagonian Toothfish,” in *Ocean Development and International Law* 35, 2004, pp. 221-266.

³⁴ *IPOA-IUU*, par. 62.

³⁵ For example Paris Memorandum of Understanding (MOU) on Port State Control (PSC), Indian Ocean MOU on Port State Control, Black Sea MOU on Port State Control, Tokyo MOU on Port State Control, Caribbean MOU on PSC, Latin American Agreements on Port State Control of Vessels.

³⁶ FAO, Report of the Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing, Rome, Italy, 31 August-02 September 2004; *FAO Fisheries Report No. 759*, FAO, Rome, para. 16.

³⁷ *FAO Fisheries Report No. 759*, Appendix E.

At the Twenty-seventh Session of the FAO Committee on Fisheries (COFI), it was agreed that an expert consultation be convened in 2007 to prepare a draft agreement on port State measures to combat IUU fishing and present it to the Twenty-eighth COFI Session in 2009.³⁸ Three technical consultations have also been held since then to deliberate on the draft agreement.³⁹

The draft port State agreement applies to all foreign fishing vessels that are seeking entry into a port State or are in one of its ports, with the exception of artisanal vessels of a neighbouring State engaged in fishing for subsistence.⁴⁰ A port State may also choose not to apply the agreement to licensed chartered vessels which are fishing exclusively in areas under its national jurisdiction.⁴¹ However, in both circumstances, the draft port State agreement provides that a port State must ensure that those vessels are subject to effective measures that prevent IUU fishing. The draft port State agreement also recognises the sovereignty of States over ports located in their territories, including the right to adopt more stringent measures than what is provided under the agreement in accordance with international law.⁴²

The provisions of this draft port State agreement are based on the FAO Model Scheme; however, the legal nature of this agreement would strengthen the application of port enforcement actions against vessels believed to have conducted IUU fishing. For example, Article 9 of the draft port State agreement provides for the right of a port State to deny a vessel the use of its ports for landing, transshipping, or processing of fish if:

- the vessel was engaged in fishing in an area and for fish under the competence of an RFMO and was not flying the flag of a State that is a member or a cooperating non-member of that organisation;
- has been reported as engaged in, or supporting IUU fishing in an RFMO area or in areas under the national jurisdiction of a coastal State; or
- has been identified as participating or supporting unregulated fishing activities in areas or in relation to species where there are no applicable conservation or management measures and where the said

³⁸ FAO, Committee on Fisheries, Report of the Twenty-seventh Session of the FAO Committee on Fisheries, 5-9 March 2007, Rome, Italy, para 68. See also, FAO, Report of the Expert Consultation to Draft a Legally-binding Instrument on Port State Measures, Washington, D.C., USA, 4-8 September 2007; *FAO Fisheries Report No. 846*, Rome, FAO, 2007.

³⁹ Technical Consultation to Draft a Legally-binding Instrument on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, Rome, Italy, 23-27 June 2008; Informal Open-ended Technical Meeting to Review the Annexes of the Draft Legally-binding Instrument on Port State Measures to Prevent, Deter and Eliminate IUU Fishing, Rome, Italy, 25-27 November 2008; and a resumed session on Technical Consultation to Draft a Legally-binding Instrument on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, Rome, Italy, 26-29 January 2009.

⁴⁰ Draft Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, in FAO, Report of Expert Consultation to Draft a Legally-binding Instrument on Port State Measures, *FAO Fisheries Report No. 846*, Art. 3(1).

⁴¹ *Draft Port State Agreement*, Art. 3(1bis).

⁴² *Draft Port State Agreement*, Preamble and Art. 4(1)(b).

fishing activities are not carried out in accordance with responsibilities relevant to the conservation of living marine resources that fall on the State in accordance with international law.

In such cases, the burden of proof lies with the fishing vessel. The draft agreement also provides for mechanisms for appeal in cases where the owner, operator, or representative of the fishing vessel does not agree with the actions of the port State.⁴³ It also provides for the obligation of the Party to the agreement to ensure that the owner or operator of the fishing vessel is entitled to compensation for any loss or damage suffered as a consequence of undue delay.⁴⁴ These provisions are not found in the FAO Model Scheme and offer protection to fishing vessels in case of undue delay, which is crucial if an international agreement on port State measures is to be adopted.

One criticism that may be raised of the text of the draft agreement on port State measures is the characterisation of actions that may be grounds for believing that a vessel has engaged in, or supported IUU fishing. Article 17 of the draft port State agreement lists a number of actions constituting IUU fishing which contain qualifiers that may be subject to different interpretations, such as “serious failure to maintain accurate records of catch and catch-related data”, “serious misreporting of catch”, “significant fishing in a closed area during a closed season or contrary to applicable effort or quota requirements,” “using fishing gear that is significantly inconsistent with authorised gear,” and “serious failure to comply with requirements for VMS.” These references to IUU fishing activities are not as strong compared to the list of activities considered as IUU fishing under RFMO conservation and management measures. This provision would therefore need further review if States are aiming for a harmonised set of port measures to combat IUU fishing.

One of the identified advantages of the current process of drafting the port State agreement is that it is considered more inclusive than the development of the FAO Model Scheme.⁴⁵ The adoption of the draft port State agreement also addresses the constraints and gaps found in the implementation of the FAO Model Scheme and may strengthen the prospects for coordinated efforts to combat IUU fishing.⁴⁶ However, just like in any international agreement, only a wide ratification and effective implementation of the agreement can achieve the objective of deterring IUU fishing in ports.

⁴³ *Draft Port State Agreement*, Art. 18.

⁴⁴ *Draft Agreement on Port State Measures*, Art. 19.

⁴⁵ Swan, J. “Port State Measures to Combat IUU Fishing: International and Regional Developments,” in *Sustainable Development Law and Policy* VII:1, 2006, p. 43.

⁴⁶ Swan, *Port State Measures to Combat IUU Fishing*, p. 43.

Measures to Prevent IUU Fishing in National Legislation

States have incorporated provisions in national legislation to strengthen measures to combat IUU fishing. For example, a number of States have adopted measures to exercise effective control over their nationals. Some States have made it a violation in their law for their nationals to engage in fishing activities that violate fisheries conservation and management laws of any other State or that undermine the effectiveness of conservation and management measures adopted by a relevant RFMO.⁴⁷ For example, New Zealand, in its fisheries legislation, prohibits its nationals from taking or transporting fish, aquatic life, or seaweed in the national fisheries jurisdiction of a foreign State contrary to the laws of that State.⁴⁸ Australia also makes it an offence for its citizens fishing in foreign vessels beyond the Australian fisheries zone to conduct operations in contravention of international conservation and management measures in the high seas, such as those established by the WCPFC.⁴⁹

Some States have also exercised jurisdiction based on the active nationality principle, by enacting laws which would punish their own nationals for taking part in IUU fishing operations, even if on board the vessels of other States.⁵⁰ An example of a State which has exercised this kind of jurisdiction is the United States, through the Lacey Act Amendments of 1981. According to this Act, “It is unlawful for any person to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any fish or wildlife taken, possessed, transported or sold in violation of any law or regulation of any State or in violation of a foreign law.”⁵¹ This approach of “long arm enforcement” has been considered effective in controlling the IUU fishing activities of US nationals outside national jurisdiction.⁵² Pacific Island States have also implemented Lacey Act-type laws that authorise them to regulate fisheries imports such as Federated States of Micronesia, Marshall Islands, Nauru, Papua New Guinea, Solomon Islands, and Tonga.⁵³

In addition to the Lacey Act, the US has specifically adopted a definition of and measures to address IUU fishing that appear to be more rigorous than what is

⁴⁷ *FAO Technical Guidelines for Responsible Fisheries No. 9*, FAO, Rome, 2002, par. 3.2.2.

⁴⁸ New Zealand, *Fisheries Act 1996 Amendment Act (No. 2) 1999*, Art. 113A. A New Zealand national is defined as either a New Zealand citizen, a person who is ordinarily resident in New Zealand, or a body corporate established by or under New Zealand law.

⁴⁹ See Australia, *Fisheries Management Act 1991*, Division 5A, Subdivision AA.

⁵⁰ Edeson, W. “Tools to Address IUU Fishing: The Current Legal Situation,” in *Experts Consultation on Illegal, Unreported and Unregulated Fishing Organised by the Government of Australia in Cooperation with FAO*, Sydney, Australia, 15-19 May 2000, AUS:IUU/2000/8, 2000, para. 38.

⁵¹ *United States Lacey Act*, Title 16, § 3372(a)(1).

⁵² Erceg, D. “Deterring IUU Fishing Through State Control Over Nationals,” in *Marine Policy*, No. 30, 2006, p. 174.

⁵³ Ortiz, P. A. “An Overview of the U.S. Lacey Act Amendments of 1981 and a Proposal for a Model Port State Fisheries Enforcement Act,” Prepared for the Ministerially-led Task Force on Illegal, Unreported and Unregulated Fishing on the High Seas, http://www.high-seas.org/docs/Lacey_Act_Paper.pdf, November 2005, accessed on 15 December 2008, p. 27.

required under the IPOA-IUU. The definition of IUU fishing has been incorporated in Section 403 of the *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act*. Section 403 amends the High Seas Driftnet Fishing Moratorium Protection Act by adding, among other things, a new Section 609 on IUU fishing. Section 609(e)(3) provides the definition of IUU fishing, at the minimum as:

- a) fishing activities that violate conservation and management measures required under an international fishery management agreement to which the United States is a party, including catch limits or quotas, capacity restrictions, and bycatch reduction requirements;
- b) overfishing of fish stocks shared by the United States, for which there are no applicable international conservation or management measures or in areas with no applicable international fishery management organisation or agreement, that has adverse impacts on such stocks; and
- c) fishing activity that has an adverse impact on seamounts, hydrothermal vents, and cold water corals located beyond national jurisdiction, for which there are no applicable international conservation or management measures or in areas with no applicable international fishery management organisation or agreement.⁵⁴

By adopting this definition of IUU fishing, the US has extended the application of the *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006* to areas beyond national jurisdiction and to fisheries with no current international regulations.

In implementing this provision, the US lists a nation if:

- (1) fishing vessels of that nation are engaged, or have been engaged during the preceding calendar year in fishing activities or practices;
 - a) in waters beyond any national jurisdiction that result in bycatch of a protected living marine resource; or
 - b) beyond the exclusive economic zone of the United States that result in bycatch of a protected living marine resource shared by the United States;
- (2) the relevant international organisation for the conservation and protection of such resources or the relevant international or regional fishery organisation has failed to implement effective measures to end or reduce such bycatch, or the nation is not a party to, or does not maintain cooperating status with, such organisation; and
- (3) the nation has adopted a regulatory program governing such fishing practices designed to end or reduce such bycatch that is comparable to that of the United States, taking into account different conditions.”⁵⁵

⁵⁴ 16 USC 1826j High Seas Driftnet Fishing Moratorium Protection Act (HSDFMFA) §609(e)(3).

⁵⁵ 16 USC 1826k HSDFMFA §610(a).

The US also aims to establish a procedure for determining if a nation listed under section 609 of the amended High Seas Driftnet Moratorium Protection Act has taken corrective actions with respect to the offending activities of its fishing vessels.⁵⁶ Such certification procedure shall provide for giving notice and an opportunity for comment by such nation.⁵⁷ Any nation which has not been certified or for which a negative certification has been issued will be subject to 16 USC 1826(a), (b)(3), and (b)(4) which provide for the denial of port privileges for the IUU vessels, prohibition on the imports of fish and fish products, and application of other economic sanctions.

In January 2009, a rule to implement the identification and certification procedures to address IUU fishing activities has been proposed. This proposed rule is accompanied by a draft environmental assessment, regulatory impact review, and regulatory flexibility act analysis.⁵⁸ An environmental assessment explores the impacts of IUU fishing and bycatch of protected marine living resources which provides the public with a context for reviewing proposed certification action. Two separate procedures are being developed for the purpose of implementing the amended legislation. One procedure is for the certification of nations that have been identified as having fishing vessels engaged in IUU fishing and the other is for nations that have been identified as having fishing vessels engaged in activities resulting in the bycatch of protected living marine resources.⁵⁹ At the time of writing, the US is soliciting comments on the IUU certification procedure and the draft environmental assessment, which are yet to be finalised.

These legislative measures are significantly different from the measures adopted under the United States NPOA-IUU. The latter has less restrictive policies than what has been provided under the amended *Magnuson-Stevens Fishery Conservation and Management Reauthorisation Act*. By embracing a similar concept of an RFMO IUU Vessel List and adopting specific measures to address IUU fishing in areas outside its jurisdiction, the US may be considered to be applying a much “longer arm of enforcement,” in terms of broadening the application of its national laws to fisheries outside its jurisdiction and by implying a requirement for other States to adopt conservation and management regulations similar to those of the US. The

⁵⁶ 16 USC 1826k HSDFMFA §609(d)(1).

⁵⁷ 16 USC 1826k HSDFMFA §609(d)(1).

⁵⁸ US Department of Commerce, NOAA, National Marine Fisheries Service, Office of International Affairs, Draft Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis for a Proposed Rule to Establish Identification and Certification Procedures for Nations Under the High Seas Driftnet Fishing Moratorium Protection Act, January 2009.

⁵⁹ 50 CFR §300.202 and 203. Protected living marine resources are defined as non-target fish, sea turtles, or marine mammals that are protected under United States law or international agreement, including the Marine Mammal Protection Act, the Endangered Species Act, the Shark Finning prohibition Act, and the Convention on International Trade in Endangered Species of Wild Flora and Fauna; but exclude species, except sharks, that are managed under the Magnuson-Stevens Fishery Conservation and Management Act, the Atlantic Tunas Convention Act or by any international fishery management organisation.

implementation of these provisions has a potential impact on the trade relationships of the US with other States. If a trading partner of the US cannot ensure that its fish products have been derived through legal means, the fish exports of that partner country run the risk of being rejected at the border and will not reach the US market. These IUU measures have detrimental impacts particularly on developing States, as in the case of the application of the new regulation adopted by the European Community against IUU fishing which is discussed in succeeding sections.

Promoting Responsible Fishing Through Trade Documentation and Labelling

Trade Documentation for Fish under RFMOs

Trade documentation refers to “schemes established by RFMOs that require documentation to accompany particular fish and fish products through international trade identifying the origin of fish for the purpose of ascertaining levels of unreported fishing.”⁶⁰ Two of the most commonly used schemes for documenting fish and fish product are catch certification and trade documents. Catch certification is issued by relevant national authorities at the point of harvesting and covers all fish to be landed or transhipped, while a trade document is issued only with respect to products that enter international trade.⁶¹ RFMOs such as ICCAT, IATTC, IOTC, and the Commission for the Conservation of Bluefin Tuna (CCSBT) have adopted trade documentation programmes, while CCAMLR has adopted a Catch Documentation Scheme for toothfish (*Dissostichus*) which is an amalgam of catch certification and trade documentation schemes.

The Bluefin Tuna Statistical Document Programme of ICCAT applies to all bluefin tuna imported into the territory of a Contracting Party. The Bluefin Tuna Statistical Document must contain information on imported, exported, or re-exported fish and fish products such as the name of the country issuing the document; description of vessel; name of the exporter and the importer; description of fish for re-export; area of harvest of the fish in the shipment; gear utilised to catch the fish; type of product and total weight; and point of export.⁶² The document is validated by a government official of the flag State

⁶⁰ FAO, Report of the Expert Consultation of Regional Fisheries Management Bodies on Harmonisation of Catch Certification, *FAO Fisheries Report No. 697, hereinafter referred to as FAO Fisheries Report No. 697*, La Jolla, United States of America, 09-11 January 2002, FAO, Rome, 2002, p. 1.

⁶¹ *FAO Fisheries Report No. 697*, p. 1. For example, IATTC states that bigeye tuna caught by purse seiners and baitboats and destined principally for canneries are not subject to the statistical document requirement. See IATTC, Resolution C-03-01, *Resolution on IATTC Bigeye Tuna Statistical Document Program*, 24 June 2003, para. 1.

⁶² ICCAT, *Recommendation by ICCAT Concerning the ICCAT Bluefin Tuna Statistical Document Program*, 92-41 SDP, 25 July 1993, Appendix, para. 1; ICCAT, *Resolution by ICCAT Concerning the Effective Implementation of the ICCAT Bluefin Tuna Statistical Document Program*, 94-05 SDP, 23 January 1995, Addendum; ICCAT, *Recommendation by ICCAT Concerning the Implementation of the*

of the vessel that harvested the tuna.⁶³ ICCAT also implements equivalent Statistical Document Programmes for swordfish, bigeye tuna, and other species.⁶⁴ Other RFMOs such as the CCSBT, IATTC, and IOTC have very comparable statistical document programmes and utilise very similar trade document forms.⁶⁵

Unlike the statistical document programmes, the Catch Documentation Scheme for *Dissostichus* spp. (CDS) adopted by CCAMLR aims not only to identify the origin of toothfish imported into or exported from its territories, but also to determine whether the toothfish was harvested in a manner consistent with CCAMLR conservation measures.⁶⁶ Each landing of toothfish at the port of a Contracting Party needs to be accompanied by a *Dissostichus* catch document (DCD) which contains information of the issuing authority; description of the vessel; reference number of the fishing license; weight of, area where, and date when the catch was taken; date and port at which the catch was landed; and information on the recipients of the catch and amount of each species and product type received.⁶⁷ In addition to this information, the DCD also requires information on landing and transshipment.⁶⁸ Provision for the collection of the information in the DCD is not found in the trade documents of ICCAT, CCSBT, IATTC, and IOTC. However, similar to the practice of these RFMOs, validation of the DCD also needs to be undertaken by proper authorities of CCAMLR Members.⁶⁹ The Export or Re-export Government Authority Validation is not certified when the shipment of toothfish is declared to have been caught by any vessel included in the IUU list.⁷⁰ If, as a result of the examination of a DCD, a question arises as to the information contained in the

ICCAT Bluefin Tuna Statistical Document Program on Re-export, 97-04 SDP, 12 December 1997, Attachment.

⁶³ ICCAT, Bluefin Tuna Statistical Document Program, Appendix, para. 1; ICCAT, *Resolution by ICCAT Concerning Validation by a Government Official of the Bluefin Tuna Statistical Document*, 93-02 SDP, 30 November 1993; ICCAT, *Recommendation by ICCAT on the Validation of Bluefin Statistical Documents between ICCAT Contracting Parties Which are Members of the European Community*, 96-10 SDP, 04 August 1997.

⁶⁴ ICCAT, *Recommendation by ICCAT on Establishing Statistical Document Programs for Swordfish, Bigeye Tuna, and Other Species Managed by ICCAT*, 00-22 SDP, 26 June 2001; ICCAT, *Recommendation by ICCAT Concerning the ICCAT Bigeye Tuna Statistical Document Program*, 01-21 SDP, 21 September 2002; ICCAT, *Recommendation by ICCAT Establishing a Swordfish Statistical Document Programme*, 01-22 SDP, 21 September 2002.

⁶⁵ See Commission for the Conservation of Southern Bluefin Tuna (CCSBT), *Southern Bluefin Tuna Statistical Document Program*, updated October 2003, www.ccsbt.org. Accessed on 15 June 2005; IATTC, *Resolution C-03-01, Resolution on IATTC Bigeye Tuna Statistical Document Program*, 24 June 2003; IOTC, *Resolution 01/06, Recommendation by IOTC Concerning the IOTC Bigeye Tuna Statistical Document Programme*.

⁶⁶ CCAMLR, Conservation Measures 10-05 (2004), *Catch Documentation Scheme for Dissostichus* spp., Art. 1.

⁶⁷ CCAMLR, *Catch Documentation Scheme*, Art. 6.

⁶⁸ CCAMLR, *Catch Documentation Scheme*, Annex.

⁶⁹ CCAMLR, *Catch Documentation Scheme*, Art. 8.

⁷⁰ CCAMLR, *Non-Contracting Party Scheme*, Art. 11(g); CCAMLR, Conservation Measure 10-06 (2004), *Scheme to Promote Compliance by Contracting Party Vessels with CCAMLR Conservation Measures*, Art. 18(viii).

document, the flag State is called upon to cooperate with the importing State to resolve the question.⁷¹

There are two major gaps in the implementation of trade documentation and catch certification schemes. First, there is no complete coverage of fisheries trade utilising these schemes. In the case of CCAMLR's CDS for example, among the 56 States trading for toothfish, only 35 States are believed to be complying with CDS requirements.⁷² This gap may create an opportunity for the trade of IUU caught toothfish. Second, statistical document programmes do not require statements that the catch had been made in compliance with regional fisheries conservation and management measures and do not directly prohibit the importation of illegally harvested tuna. Hence, such types of catch documentation schemes do not necessarily identify IUU-caught fish. There is therefore a need to fill these gaps in the implementation of trade documentation and catch certification schemes in order for this measure to effectively address IUU fishing.

AIDCP Dolphin Safe Tuna Certification

The Agreement on the International Dolphin Conservation Program (AIDCP) provides for the certification of AIDCP Dolphin Safe Tuna and Tuna Products.⁷³ An AIDCP Dolphin Safe Tuna Certificate is a document issued by the department of a national government which is responsible for implementing the procedures for the certification of AIDCP Dolphin Safe Tuna.⁷⁴ An AIDCP Dolphin Safe Tuna Label may be used on the packaging of the tuna certified under the program.⁷⁵ It is a graphic representation which distinguishes dolphin safe tuna and tuna products. This certification is implemented together with the System for Tracking and Verification of Tuna.⁷⁶ The purpose of the system for tracking and verifying tuna is to enable dolphin safe tuna to be distinguished from non-dolphin safe tuna from the time of capture, during unloading, storage, transfer, and processing, or to the time it is ready for retail sale.⁷⁷ Tuna which is positively identified by the IATTC as having been caught in contravention of IATTC tuna conservation and management measures is not eligible for AIDCP Dolphin Safe Tuna Certificate.⁷⁸ Such measure not only addresses illegal fishing for tuna in the IATTC area, but also bycatch issues associated with IUU fishing. Among the Pacific Island countries, only Vanuatu has ratified the AIDCP. There are also other dolphin-safe tuna labelling initiatives which are

⁷¹ CCAMLR, *Catch Documentation Scheme*, Art. 10.

⁷² Riddle, K. W. "Illegal, Unreported, and Unregulated Fishing," in *Ocean Development and International Law*, No. 37, 2006, p. 282.

⁷³ IATTC, Agreement on the International Dolphin Conservation Program, *Procedures for AIDCP Dolphin Safe Tuna Certification*, amended, 20 October 2005.

⁷⁴ AIDCP, *Procedures for AIDCP Dolphin Safe Tuna Certification*, para 1.

⁷⁵ AIDCP, *Procedures for AIDCP Dolphin Safe Tuna Certification*, para 1.

⁷⁶ AIDCP, *Procedures for AIDCP Dolphin Safe Tuna Certification*, para 4(a).

⁷⁷ AIDCP, *System for Tracking and Verifying Tuna*, para 2.

⁷⁸ AIDCP, *Procedures for AIDCP Dolphin Safe Tuna Certification*, para 3.

supported by non-government organisations, either with or without a third party certification process.⁷⁹

Marine Stewardship Council Eco-labelling Standard

Another scheme that promotes sustainable fishing, although it does not directly target IUU fishing, is eco-labelling. One of the most popular initiatives in eco-labelling is the formulation of the Marine Stewardship Council (MSC)⁸⁰ Principles and Criteria for Sustainable Fisheries. These principles consider the status of the target fish stocks, impact of the fishery on the ecosystem, and performance of the fishery management system.⁸¹ Certain operational criteria under these principles ensure that fishing activities are in compliance with all legal and administrative requirements of a State and that fish has not been caught through IUU fishing activities, such as the use of destructive fishing methods.⁸² Fisheries which conform to these principles and criteria are certified. However, the MSC eco-labelling programme is voluntary and has a very limited scope. As at October 2008, there are 858 MSC-labelled seafood products sold in 34 countries worldwide.⁸³ This involves 35 fisheries accredited to the MSC standards and 74 others are currently undergoing assessment.⁸⁴ Over 7 per cent of the world's wild-capture fisheries are now engaged in the program, either as certified fisheries or in full assessment against the MSC standard for a sustainable fishery.⁸⁵ There is currently no company owned by Pacific Island countries which is certified to carry a MSC logo.

To address the inability of some fisheries to conform to existing standards for sustainable fishery, a new process has been established to develop new technical guidelines to help fisheries with insufficient data to be certified under the MSC. The new guidelines introduce a risk assessment that will be initiated on small-scale and data-deficient fisheries to assess their performance and provide an alternative route to certification against MSC standards.⁸⁶ There are currently four fisheries in Africa and South America which are participating in the trials to test the new guidelines for the assessment of small-scale and data-deficient fisheries.⁸⁷

⁷⁹ Eg. US Department of Commerce Dolphin Safe, Flipper Seal of Approval, Greensea Dolphinsafe, Earth Island Dolphin Safe, John West Dolphin Friendly labels.

⁸⁰ Marine Stewardship Council (MSC) is an independent, global, non-profit organisation which seeks to harness consumer purchasing power to generate change and promote environmentally responsible stewardship for the world's most important renewable food source. The MSC was first established by Unilever and World Wide Fund for Nature in 1997. See www.msc.org. Accessed on 17 March 2008.

⁸¹ Marine Stewardship Council (MSC), *International Eco-labelling in Fisheries*, April 2004, p. 4.

⁸² MSC, *International Eco-labelling in Fisheries*, p. 17.

⁸³ MSC Website. *Certified Fisheries*. www.msc.org. Accessed on 17 March 2008.

⁸⁴ MSC Website. *Certified Fisheries*.

⁸⁵ MSC Website. *Certified Fisheries*.

⁸⁶ MSC Website, *Developing world fisheries embark on journey to MSC eco-label*. www.msc.org. Accessed on 17 March 2008.

⁸⁷ MSC Website, *Developing world fisheries embark on journey to MSC eco-label*.

There are various advantages for implementing eco-labelling schemes for fish and fisheries products. Eco-labelling programmes can provide information about the environmental impact of products, provide consumers with the opportunity to express their environmental or ecological concerns through their purchasing behaviour, enhance incentives for producers to supply products that meet eco-labelling requirements, and encourage retailers and consumers to buy only fisheries products that come from sustainably managed resources.⁸⁸ For the purpose of combating IUU fishing, eco-labelling schemes may be used to distinguish between fish which have been caught contrary to fisheries conservation and management measures of a State or RFMO and those which have been caught in a sustainable manner.

However, there are challenges in the implementation of the MSC eco-labelling scheme. There have been criticisms that eco-labelling processes of certain fisheries, such as the western rock lobster, New Zealand hoki and South Georgia toothfish, have been inaccurate and misleading, have failed to address the problem of IUU fishing, and have not complied with the MSC Principles and Criteria for Sustainable Fisheries.⁸⁹ Another challenge is the accountability in and transparency of the MSC certification process, as well as the refinement and consistent interpretation and implementation of the MSC Principles and Criteria.⁹⁰ It has been submitted that the implementation of the MSC eco-labelling process could be improved through the identification of critical indicators for failing a certification process such as the failure to follow scientific advice in management and the levels of IUU fishing in the fishery and by-catch levels.⁹¹

Unilever's Fish Sustainability Initiative (FSI)

Related to the campaign on sustainable fisheries is Unilever's Fish Sustainability Initiative (FSI). Unilever has committed to buy its fish from sustainable sources and supports the Marine Stewardship Council standard for fish certification. In 1996, Unilever wrote to all of its suppliers asking them to confirm that their fish were legally caught in specified FAO statistical areas and has stopped doing business with suppliers who could not offer that confirmation.⁹² Unilever has established its own assessment tool known as the 'traffic light system', where each fishery is assessed according to five indicators: fisheries research, quota system, regulatory tools, control systems, and long-term management plan.⁹³ The effect of fishing on marine ecosystems is also taken into account.⁹⁴ The assessment results are graded based on three

⁸⁸ Deere, C. *Eco-labelling and Sustainable Fisheries*, FAO, Rome, 1999, p. 7.

⁸⁹ Potts, T. and Haward, M. "International Trade, Eco-labelling, and Sustainable Fisheries—Recent Issues, Concepts, and Practices," in *Environment, Development and Sustainability*, 2006, p. 12.

⁹⁰ Potts and Haward, *International Trade, Eco-labelling, and Sustainable Fisheries*, p. 13.

⁹¹ Potts and Haward, *International Trade, Eco-labelling, and Sustainable Fisheries*, p. 13.

⁹² Unilever, *Fishing for the Future II: Unilever's Fish Sustainability Initiative (FSI)*, FF/RLD/SP/5000/1003, p. 6. www.unilever.com. Accessed on 17 March 2008.

⁹³ Unilever, *Fishing for the Future II: Unilever's Fish Sustainability Initiative (FSI)*, p. 6.

⁹⁴ Unilever, *Fishing for the Future II: Unilever's Fish Sustainability Initiative (FSI)*, p. 6.

colours—red, green, and yellow. A fishery that gets all green colours is deemed sustainable and Unilever recommends that they seek certification under MSC standards. Those that show a mix of green and yellow are deemed managed and progressing, and those that get one or more red are considered poorly managed. The fishery is deemed unmanaged if its assessment scores red in all five indicators. Unilever does not obtain fish from unmanaged fisheries and supports those which are making progress towards sustainability.⁹⁵

More companies are now supporting more sustainable fisheries. Retailers like Wal-Mart and Asquith and Dairies (ASDA) have pledged to switch to 100 per cent MSC-certified fish within 3 to 5 years.⁹⁶ The widening campaign against IUU fishing is progressively establishing a trend towards buying legally-caught fish, which could result in loss of market for fishing companies which cannot comply with international and regional certification processes.

Regional Cooperation to Address IUU Fishing

Cooperation among States to combat IUU fishing also exists outside the framework of RFMOs. Some of the recent examples of this form of cooperation are: the adoption of the Regional Plan of Action to Promote Responsible Fishing involving States in Southeast Asia; the proposed strategies to eradicate IUU fishing in the European Community; High Seas Task Force work on Best RFMO Practices; and the Africa Caribbean and Pacific Group of States-European Union (ACP-EU) Joint Parliamentary Assembly meeting on IUU fishing.⁹⁷ These initiatives highlight the need for strengthened cooperation among States in order to effectively address IUU fishing.

Regional Plan of Action to Promote Responsible Fishing, including Combating IUU Fishing in the Region

The Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region was approved by the Ministers of Republic of Indonesia, Australia, Brunei Darussalam, Cambodia, Malaysia, Papua New Guinea, The Philippines, Singapore, Thailand, Timor-Leste and Vietnam on 5 May 2007 at Bali, Indonesia. The RPOA is a voluntary instrument that draws on core principles from binding and non-binding international fisheries instruments for promoting responsible fishing practices. The objective of the RPOA is to enhance and strengthen the overall level of

⁹⁵ Unilever, *Fishing for the Future II: Unilever's Fish Sustainability Initiative (FSI)*, p. 6.

⁹⁶ MSC Website, www.msc.org. Accessed on 17 March 2008.

⁹⁷ Other regional organisations outside the Pacific have also adopted plans of action to combat IUU fishing, such as the Lake Victoria Fisheries Organisation (LVFO) and the Southern African Development Community (SADC). See Lake Victoria Fisheries Organisation, Regional Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing on Lake Victoria and Its Basin, Bagamoyo, Tanzania, 27 May 2004; TRAFFIC News, "Southern African states move to eradicate "pirate" fishing," <http://www.traffic.org/home/2008/7/11/southern-african-states-move-to-eradicate-pirate-fishing.html>. Accessed on 10 October 2008.

fisheries management in the region, in order to sustain fisheries resources and the marine environment, and to optimise the benefit of adopting responsible fishing practices.⁹⁸

There are 12 actions adopted under the RPOA which cover conservation of fisheries resources and their environment, managing fishing capacity, and combating IUU fishing in three areas: the South China Sea, the Arafura-Timor Seas, and the Sulu-Sulawesi Seas (Celebes Sea). Some of the specific actions include collaboration to compile an overview of artisanal and industrial fishing; the current status of fish stocks trade flows and markets; implementation of international and regional instruments; improvement of data collection systems; assessment and management of fishing capacity; adoption of port State measures; implementation of regional market measures; strengthening of MCS systems; monitoring of transshipment activities; and capacity-building.

In order to ensure the implementation of the RPOA, a Coordination Committee composed of officials from participating States has been established. The Coordination Committee is a high level decision-making body which provides strategic advice and direction to RPOA members. Regular meetings are held to discuss and monitor the implementation of the RPOA. At the initial meeting of the RPOA, five strategic priority areas were identified for strengthening and implementing further measures. These areas are strengthening MCS systems, coastal State responsibilities, regional capacity building, current resource and management situation in the region, and port State measures. Workshops have been held on MCS in order to identify relevant issues, needs, and potential actions for the region.⁹⁹

EC Regulation on IUU Fishing

Apart from its active participation in RFMOs in combating IUU fishing, the European Commission (EC) has adopted specific measures to address the problem. The EC is one of the first regional organisations to adopt a Community Action Plan for the Eradication of IUU Fishing in 2002.¹⁰⁰ The Community Action Plan focused on strengthening the control of fishing activities, particularly of European Union (EU) vessels and nationals to deter

⁹⁸ Joint Ministerial Statement, *Regional Ministerial Meeting on Promoting Responsible Fishing Practices including Combating Illegal, Unreported, Unregulated (IUU) Fishing in the Region*, Bali, Indonesia, 04 May 2007, para. 5; Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices including Combating Illegal, Unreported, Unregulated (IUU) Fishing in the Region, para. 3.

⁹⁹ Workshop on Monitoring, Control and Surveillance for the Implementation of the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region, Bali, Indonesia, 4-6 March 2008; Pre-meeting of the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region Coordination Committee on Monitoring, Control and Surveillance for the implementation of the RPOA, Manila, Philippines, 28 April 2008.

¹⁰⁰ Commission of the European Communities, Communication from the Commission, *Community Action Plan for the Eradication of Illegal, Unreported and Unregulated Fishing*, COM(2002) 180 final, Brussels, 28 May 2002.

and sanction illegal fishing activities. Four years after the adoption of the European Community Plan of Action, a new strategy was proposed to address IUU fishing. The strategy aims to improve port State control of third country fishing vessels and control of third country fishery products to close the market to IUU fish products.

There have been a number of criticisms on the proposed EC strategy to combat IUU fishing. It was perceived that proposed measures on traceability of fish and fishery products from third country vessels may lead to the exclusion of products of developing countries from EU markets if they are unable to comply.¹⁰¹ The requirement on third country flag States to demonstrate that produce on board vessels has been caught legally through certification is a capability that may not exist in developing countries.¹⁰² Similarly, a ban on all products from States which fail to ensure that their vessels comply with conservation and management measures, rather than a restriction solely applied to specific vessels or companies involved in illegal fishing, is also of concern to some stakeholders.¹⁰³ In these proposed measures, the onus to demonstrate compliance with the EU strategy lies with the developing flag State.

Despite concerns raised by developing trade partners of the EC, this strategy became the basis for drafting the EC IUU Regulation. On 29 September 2008, the Council of the European Union adopted EC No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.¹⁰⁴ This regulation is scheduled to enter into force on 1 January 2010.¹⁰⁵

The EC IUU Regulation applies to “any vessel of any size used for or intended for use for the purposes of commercial exploitation of fishery resources, including support ships, fish processing vessels, and vessels engaged in transshipment and carrier vessels equipped for the transportation of fishery products, except container vessels”.¹⁰⁶ The EC IUU Regulation also applies to “any products which fall under Chapter 03 (fish and crustaceans, molluscs and other aquatic invertebrates), and Tariff headings 1604 (prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs) and 1605 (crustaceans, molluscs and other aquatic invertebrates, prepared or preserved) of the Combined Nomenclature established by Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the

¹⁰¹ Consultation on the Elaboration of a new Strategy against IUU fishing by the European Community, Response Document Resulting from a stakeholder consultation meeting, Brussels, 20 February 2007, 16 March 2007, p. 4.

¹⁰² *Consultation on the Elaboration of a new Strategy against IUU fishing by the EC*, p. 4.

¹⁰³ *Consultation on the Elaboration of a new Strategy against IUU fishing by the EC*, p. 4.

¹⁰⁴ Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.

¹⁰⁵ *EC No 1005/2008*, Article 57.

¹⁰⁶ *EC No 1005/2008*, Art. 2(5).

Common Customs tariff, with the exception of products listed in Annex 1 of this Regulation.”¹⁰⁷

The EC IUU Regulation comprises four key elements: port control over third country fishing vessels; catch certification requirements; establishment of the Community IUU vessel list; and establishment of a list of non-cooperating third countries. Among these components, the implementation of catch certification requirements and listing of non-cooperating third countries would have the most impact on Pacific Island States.

The EC IUU Regulation requires that the importation, exportation and indirect importation of fishery products be allowed only when accompanied by catch certificates validated by the flag State of the vessel.¹⁰⁸ As a rule, importers must submit validated catch certificates to the competent authorities of the EC member State in which the product is intended to be imported at least three working days before the estimated time of arrival into the territory of that State.¹⁰⁹ If an importer has been granted the status of an approved economic operator, it has the option to merely advise the EC member State of the arrival of the product and keep the validated catch certificates for verification of the competent authority at a later stage when the fishery product has entered the territory of the EC member State.¹¹⁰ The status of an approved economic operator may be granted on the basis of certain criteria, including an appropriate record of compliance with relevant conservation and management measures.¹¹¹ If a third country fishing vessel has not complied with catch certification requirements under the EU IUU Regulation, a range of actions may be taken by an EC member State, such as the refusal to import the fishery product associated with the catch certification.¹¹²

The implementation of catch certification requirements under the EC IUU Regulation has a number of implications for Pacific Island States. In order to ensure that fisheries products are not denied entry into the territories of the EC Members, Pacific Island States will need to establish a national catch certification and validation scheme that complies with the requirements of the EC IUU Regulation. Such a scheme would also need to take into account the nature and management of domestic-based foreign-owned fishing vessels operating in a number of Pacific Island States and ensure that they exercise control over the activities of vessels under such arrangement. In order to facilitate export of fishery products into the EC, Pacific Island States would further need to establish a system for granting fishing companies and establishments the status of approved economic operators, similar to the

¹⁰⁷ *EC No 1005/2008*, Art. 2(8).

¹⁰⁸ *EC No 1005/2008*, Art. 14 and 15.

¹⁰⁹ *EC No 1005/2008*, Art. 16. This requirement may be varied according to the type of fishery product, distance to the place of entry, and the transport used.

¹¹⁰ *EC No 1005/2008*, Art. 16(2).

¹¹¹ *EC No 1005/2008*, Art. 16(3).

¹¹² *EC No 1005/2008*, Art. 18.

regulations on determining authorised establishments which comply with EC Sanitary and Phytosanitary Regulations. The implementation of national catch certification systems to meet the requirements of the EC IUU Regulation entails cost to developing trade partners of EC member States, including Pacific Island States.

Another measure adopted under the EC IUU Regulation which has a potential negative impact on Pacific Island States is the establishment of a list of non-cooperating States. According to the EC IUU Regulation, a State may be identified as a non-cooperating third country if it fails to discharge the duties incumbent upon it under international law as flag, port, coastal or market States and to take action to prevent, deter and eliminate IUU fishing activities.¹¹³ The listing of such States is based on a number of factors, including the implementation of relevant international obligations by the third country in question, the IUU fishing record of its vessels, operators and nationals, and its record in taking effective enforcement actions in respect of the IUU fishing activities by its nationals.¹¹⁴

Furthermore, the EC IUU Regulation prohibits the importation into the EC of fishery products caught by fishing vessels flying the flag of non-cooperating third countries and non-acceptance of catch certificates accompanying such products.¹¹⁵ The EC IUU Regulation also contains a provision on the denunciation by the EC of any standing bilateral fisheries agreement or fisheries partnership agreements with non-cooperating third countries, refusal to enter into negotiations to conclude a bilateral fisheries agreement or fisheries partnership agreements with such States, and prohibition of private trade arrangements between nationals of an EC Member State and the non-cooperating third country.¹¹⁶ These particular provisions may affect the Federated States of Micronesia, Solomon Islands, and Kiribati which currently have bilateral access agreements with the EC. Enforcement of this nature functions as economic sanctions and goes beyond what is provided under the IPOA-IUU and RFMO schemes against IUU fishing. Since procedures on how these provisions will be implemented have not been established, it not clear as to how the EC will make the assessment of how and why a State can be listed as a non-cooperating State. There is potential for discriminatory application of these provisions should the EC fail to implement the same level of stringent measures against its Members.¹¹⁷

¹¹³ *EC No 1005/2008*, Art. 31(3).

¹¹⁴ *EC No 1005/2008*, Art. 31(4), 31(5), and 31(6) and 31(7).

¹¹⁵ *EC No 1005/2008*, Art. 38.

¹¹⁶ *EC No 1005/2008*, Art. 38(8) and (9).

¹¹⁷ Other potential trade-related impact of the EC IUU Regulation on Pacific Island States, see Tsamenyi, M., Palma, M. A., Milligan, B. and Mfodwo, K. "Report on the Development Impact of the Council Regulation Establishing a European Community System to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing on Commonwealth ACP Member Countries," *Prepared for the Commonwealth Secretariat*, November 2008.

http://www.thecommonwealth.org/document/184808/ec_iuu_report.htm.

ACP-EU Joint Parliamentary Assembly Meeting on IUU Fishing

As a response to the impending implementation of the EC IUU Regulation, the ACP-EU Joint Parliamentary Assembly¹¹⁸ held a meeting in Port Moresby, Papua New Guinea on 25 November 2008 to discuss the threats posed by IUU fishing and the necessary interventions within the context of EC IUU Regulation. A number of issues have been raised by ACP States such as the lack of capacity and resources to implement the new regulation, increased pressure on the market of fisheries product entering EU territories, and the lack of proper consultation by the EC when the regulation was being prepared.¹¹⁹ The ACP-EU Joint Parliamentary Assembly resolved that further meetings be conducted in 2009 and 2010 to discuss the scale of IUU fishing issues and the support that the EC may offer the ACP States to adapt and comply with the new regulation.

RFMO Best Practices

In March 2006, the Ministerially-led Task Force on IUU Fishing on the High Seas¹²⁰ launched a report which included a proposal to develop a “model” for improved governance by RFMOs. In January 2007, an initiative began to develop a common methodology and set of criteria for the core functions of the five tuna RFMOs to guide the organisations through individual performance reviews.¹²¹ The report has nine subject areas: general practice; conservation and management; allocation; compliance and enforcement; decision-making; dispute settlement; transparency; special requirements of developing countries; and institutional practices.

The report reiterates some of the key measures implemented by RFMOs and recommends the adoption of a comprehensive system of control to ensure compliance with their conservation and management measures. This system of control should include a register of all fishing vessels, transshipment and support vessels, and a centralised VMS that reports high seas fishing operations

¹¹⁸ The ACP-EU Joint Parliamentary Assembly was created to bring together elected representatives of the EC and ACP countries that have signed the Cotonou Agreement to reinforce and implement ACP-EU conventions. See ACP-EU Joint Parliamentary Assembly Website, http://www.europarl.europa.eu/intcoop/acp/10_01/default_en.htm, Accessed on 14 January 2008.

¹¹⁹ ACP-EU Joint Parliamentary Assembly, *Report of the Side Event Meeting on Fighting Against Illegal, Unreported and Unregulated Fishing*, organised on the 25th November 2008 in the context of the 16th ACP-EU Joint Parliamentary Assembly (JPA) held in Port Moresby by JPA Members, ACP Working Group on Fisheries and CTA, CTA/WGFisheries/Version 4/12/2008, p. 4.

¹²⁰ The Ministerially-led task force on IUU fishing on the high seas was established in 2003 under the auspices of the Round Table on Sustainable Development at the Organisation of Economic Co-operation and Development (OECD) to respond to work with international non-government organisations (NGOs) to draft an action to combat IUU fishing on the high seas. The Ministerial membership of the Task Force included fisheries ministers from Australia, Canada, Chile, Namibia, New Zealand, and the UK. See High Seas Task Force Website, www.high-seas.org. Accessed on 10 January 2009.

¹²¹ Recommended Best Practices for Regional Fisheries Management Organisations Executive Summary, Report of an independent panel to develop a model for improved governance by Regional Fisheries Management Organisations, The Royal Institute of International Affairs, London, 2007, p. 1.

to RFMOs in real time. It is recommended that the system should also have port State measures that would only allow landing and transhipment in ports from fishing vessels confirmed to have conformed to conservation and management measures. The system of control should further have trade and market-related measures such as catch certification and trade documentation scheme, particularly for high-value fisheries. Other proposed measures to be included in the system are observer programmes and inspection schemes.¹²²

There are other RFMO practices recommended by the High Seas Task Force on compliance and enforcement. The report recommends a system for punishing flag States and/or their vessels and nationals for violations of RFMO conservation and management measures, as well as the requirement to follow up any violations by its flagged vessels and report on the domestic actions taken to the relevant RFMO. Another recommended practice is the adoption of schemes to target non-parties fishing in contravention of RFMO conservation and management measures, such as blacklisting non-party vessels and listing irresponsible flag States followed by agreed actions against those vessels and States.¹²³ This report indicates the general view of most RFMOs that IUU vessel listing should be directed against vessels of third parties fishing in RFMO areas. In the case of nationals of members of RFMOs, the report recommends that schemes to promote compliance by national vessels must be adopted. In this report, there was no reference to the creation of IUU listing for vessels flying the flags of RFMO members.

Conclusion

After the adoption of the IPOA-IUU, various measures have been adopted to address IUU fishing at a much broader and more effective manner. Most of these measures are being implemented rigorously by individual States and regional organisations, and it will not be surprising to see the adoption of more stringent measures to combat IUU fishing in years to come. Such development not only signifies the increasing awareness on the negative impacts of IUU fishing, but also demonstrates a better understanding of the gaps in the existing international regulatory framework and the need to strengthen measures to deal with the problem. However, there are still a number of issues that need to be addressed in the implementation of measures such as IUU vessel listing, trade documentation, labelling of fish, and listing of non-cooperating States. Such measures need to take into account the nature of IUU fishing issues and the legal implications of adopting some of these restrictive measures. States will also need to strengthen measures at the domestic level to control their nationals and explore other avenues of cooperation in order to address IUU fishing.

¹²² *Recommended Best Practices for RFMOs: Executive Summary*, p. 4.

¹²³ *Recommended Best Practices for RFMOs: Executive Summary*, p. 13.

Bibliography

ACP-EU Joint Parliamentary Assembly, *Report of the Side Event Meeting on Fighting against Illegal, Unreported and Unregulated Fishing*, organised on the 25th November 2008 in the context of the 16th ACP-EU Joint Parliamentary Assembly (JPA) held in Port Moresby by JPA Members, ACP Working Group on Fisheries and CTA, CTA/WGFisheries/Version 4/12/2008, 4 pages.

ACP-EU Joint Parliamentary Assembly Website, http://www.euoparl.europa.eu/intcoop/acp/10_01/default_en.htm accessed on 14 January 2008.

Australia, *Fisheries Management Act 1991 (Commonwealth)*.

Coalition for Legal Toothfish Operators (COLTO) Website, *Toothfish Vessels*, www.colto.org accessed on 28 December 2008.

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), *CCAMLR IUU Vessel Lists (updated at CCAMLR-XXIV, 2005)*, www.ccamlr.org/pu/E/sc/fish-monit/iuu-vess-list.htm accessed on 09 January 2009.

Commission of the European Communities, Communication from the Commission, *Community Action Plan for the Eradication of Illegal, Unreported and Unregulated Fishing*, COM(2002) 180 final, Brussels, 28 May 2002.

CCAMLR, Conservation Measures 10-05 (2004), *Catch Documentation Scheme for Dissostichus spp.*

CCAMLR, Conservation Measure 10-06 (2006), *Scheme to Promote Compliance by Contracting Party Vessels with CCAMLR Conservation Measures.*

CCAMLR, Conservation Measure 10-07 (2006), *Scheme to Promote Compliance by Non-Contracting Party Vessels with CCAMLR Conservation Measures.*

Commission for the Conservation of Southern Bluefin Tuna (CCSBT), *Southern Bluefin Tuna Statistical Document Program*, updated October 2003 www.ccsbt.org accessed on 15 June 2005.

Deere, C. *Eco-labelling and Sustainable Fisheries*, FAO, Rome, 1999, 32 pages.

Erceg, D. "Deterring IUU Fishing Through State Control Over Nationals," in *Marine Policy*, No. 30, 2006, 173-179.

Edeson, W. "Tools to Address IUU Fishing: The Current Legal Situation." *Experts Consultation on Illegal, Unreported and Unregulated Fishing Organised by the Government of Australia in Cooperation with FAO*, Sydney, Australia, 15-19 May 2000, AUS:IUU/2000/8, 2000, 13 pages.

European Commission (EC), Consultation on the Elaboration of a New Strategy Against IUU Fishing by the European Community, Response Document Resulting from a Stakeholder Consultation Meeting, Brussels, 20 February 2007, 16 March 2007.

EC, Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999.

Fallon, L. D. and Kriwoken, L. K. "International Influence of an Australian Nongovernment Organisation in the Protection of Patagonian Toothfish" in *Ocean Development and International Law*, No. 35, 2004, pp. 221-266.

Food and Agriculture Organisation (FAO), *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*, Adopted at the 27th Session of the FAO Conference, 24 November 1993.

FAO, *Code of Conduct for Responsible Fisheries*, Adopted at the 28th Session of the FAO Conference, Rome, Italy, 31 October 1995.

FAO, Committee of Fisheries, *Report of the Twenty-seventh Session of the FAO Committee on Fisheries*, 5-9 March 2007, Rome, Italy.

FAO. Fisheries Department, Implementation of the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing, *FAO Technical Guidelines for Responsible Fisheries No. 9*, FAO, Rome, 2002.

FAO, *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU)*, Adopted on 23 June 2001 at the 120th Session of the FAO Council.

FAO, Report of the Expert Consultation to Draft a Legally-binding Instrument on Port State Measures, Washington, D.C., USA, 4-8 September 2007, *FAO Fisheries Report No 846*, FAO, Rome, 2007, 22 pages.

FAO, Report of the Expert Consultation of Regional Fisheries Management Bodies on Harmonisation of Catch Certification, *FAO Fisheries Report No. 697*, La Jolla, United States of America, 09-11 January 2002, FAO, Rome, 2002, 28 pages.

FAO, Report of the Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing, Rome, Italy, 31 August-02 September 2004, *FAO Fisheries Report No. 759*, FAO, Rome, 34 pages.

Ghana, *National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, June 2004.

Greenpeace International Website, *Blacklist*, <http://blacklist.greenpeace.org/> accessed on 28 December 2008.

High Seas Task Force, "How to Get Better Information About High Seas Fishing Vessels" *Presented at the Meeting of the High Seas Task Force*, Paris, France, 09 March 2005.

High Seas Task Force, *Recommended Best Practices for Regional Fisheries Management Organisation.. Executive Summary*, Report of an independent panel to develop a model for improved governance by Regional Fisheries Management Organisations, The Royal Institute of International Affairs, London, 2007, 20 pages.

High Seas Task Force Website, www.high-seas.org accessed on 10 January 2009.

Indian Ocean Tuna Commission (IOTC), *IOTC IUU Vessels List*, www.iotc.org/English/iuu/search.php accessed on 09 January 2009.

IOTC, Resolution 01/06, *Recommendation by IOTC Concerning the IOTC Bigeye Tuna Statistical Document Programme*.

IOTC, *Resolution 06/01 on Establishing a List of Vessels Presumed to Have Carried Out IUU Fishing in the IOTC Area*.

Inter-American Tropical Tuna Commission (IATTC), Agreement on the International Dolphin Conservation Program. *Procedures for AIDCP Dolphin Safe Tuna Certification*, amended 20 October 2005.

IATTC, *IUU Vessel List*, www.iattc.org/VesselRegister/IUU.aspx?Lang=en accessed on 09 January 2009.

IATTC, Resolution C-03-01, *Resolution on IATTC Bigeye Tuna Statistical Document Program*, 24 June 2003.

International Commission for the Conservation of Atlantic Tunas (ICCAT), *Bluefin Tuna Statistical Document Program*.

ICCAT, *IUU Vessel List*, www.iccat.int/en/IUU.asp accessed on 09 January 2009.

ICCAT, *Recommendation by ICCAT Concerning the ICCAT Bigeye Tuna Statistical Document Program*, 01-21 SDP, 21 September 2002.

ICCAT, *Recommendation by ICCAT Concerning the ICCAT Bluefin Tuna Statistical Document Program*, 92-41 SDP, 25 July 1993.

ICCAT, *Recommendation by ICCAT Concerning the Implementation of the ICCAT Bluefin Tuna Statistical Document Program on Re-export*, 97-04 SDP, 12 December 1997.

ICCAT, *Recommendation by ICCAT on Establishing Statistical Document Programs for Swordfish, Bigeye Tuna, and Other Species Managed by ICCAT*, 00-22 SDP, 26 June 2001.

ICCAT, *Recommendation by ICCAT Establishing a Swordfish Statistical Document Programme*, 01-22 SDP, 21 September 2002.

ICCAT, *Recommendation by ICCAT on the Validation of Bluefin Statistical Documents between ICCAT Contracting Parties Which are Members of the European Community*, 96-10 SDP, 04 August 1997.

ICCAT, *Recommendation by ICCAT to Establish a List of Vessels Presumed to have Carried out IUU Fishing Activities in the ICCAT Convention area*, 06-12.

ICCAT, *Resolution by ICCAT Concerning the Effective Implementation of the ICCAT Bluefin Tuna Statistical Document Program*, 94-05 SDP, 23 January 1995.

ICCAT, *Resolution by ICCAT Concerning Validation by a Government Official of the Bluefin Tuna Statistical Document*, 93-02 SDP, 30 November 1993.

Joint Ministerial Statement, *Regional Ministerial Meeting on Promoting Responsible Fishing Practices including Combating Illegal, Unreported, Unregulated (IUU) Fishing in the Region*, Bali, Indonesia, 04 May 2007.

Kingdom of Tonga, *Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, September 2004.

Lake Victoria Fisheries Organisation, *Regional Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing on Lake Victoria and Its Basin*, Bagamoyo, Tanzania, 27 May 2004.

Marine Stewardship Council, *International Eco-labelling in Fisheries*, MSC, April 2004, 21 pages.

Marine Stewardship Council Website, www.msc.org accessed on 17 March 2008.

Northeast Atlantic Fisheries Commission (NEAFC), *NEAFC IUU List*, www.neafc.org/illegal accessed on 09 January 2009.

NEAFC, *Non-Contracting Party Scheme*, no date.

Northwest Atlantic Fisheries Organisation (NAFO), *Illegal, Unregulated and Unreported Fishing*, www.nafo.int/fisheries/frames/fishery-iuu.html accessed on 09 January 2009.

New Zealand, *Fisheries Act 1996 Amendment Act (No. 2) 1999*.

New Zealand. Ministry of Fisheries, *New Zealand Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated and Unreported Fishing*, May 2004.

Ortiz, P. A. “An Overview of the U.S. Lacey Act Amendments of 1981 and a Proposal for a Model Port State Fisheries Enforcement Act.” *Prepared for the Ministerially-led Task Force on Illegal, Unreported and Unregulated Fishing on the High Seas*, http://www.high-seas.org/docs/Lacey_Act_Paper.pdf November 2005, accessed on 15 December 2008, 40 pages.

Potts, T. and Haward, M. “International Trade, Eco-labelling, and Sustainable Fisheries—Recent Issues, Concepts, and Practices” in *Environment, Development and Sustainability*, 2006, pp. 1-17.

Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices including Combating Illegal, Unreported, Unregulated (IUU) Fishing in the Region, Bali, Indonesia, 5 May 2007.

Republic of Korea. Ministry of Maritime Affairs and Fisheries, *Republic of Korea National Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated and Unreported Fishing*, no date.

Riddle, K. W. “Illegal, Unreported, and Unregulated Fishing” in *Ocean Development and International Law*, No. 37, 2006, pp. 265-298.

Swan, J. "Port State Measures to Combat IUU Fishing: International and Regional Developments" in *Sustainable Development Law and Policy* VII:1, 2006, pages 38-44.

TRAFFIC News, "Southern African states move to eradicate "pirate" fishing" <http://www.traffic.org/home/2008/7/11/southern-african-states-move-to-eradicate-pirate-fishing.html> accessed on 10 October 2008.

Tsamenyi, M.; Palma, M. A.; Milligan, B. and Mfodwo, K. "Report on the Development Impact of the Council Regulation Establishing a European Community System to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing on Commonwealth ACP Member Countries" *Prepared for the Commonwealth Secretariat*, November 2008, http://www.thecommonwealth.org/document/184808/ec_iuu_report.htm

Unilever, *Fishing for the Future II: Unilever's Fish Sustainability Initiative (FSI)*, FF/RLD/SP/5000/1003, www.unilever.com accessed on 17 March 2008, 13 pages.

United Nations (UN), *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, August 1995.

United Nations Convention on the Law of the Sea, Montego Bay, Jamaica, 04 December 1982.

United States (US) Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service, Office of International Affairs, *Draft Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis for a Proposed Rule to Establish Identification and Certification Procedures for Nations Under the High Seas Driftnet Fishing Moratorium Protection Act*, January 2009.

US, *National Plan of Action of the United States of America to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, coordinated by the U.S. Department of State in conjunction with the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, the U.S. Coast Guard, the Office of the U.S. Trade Representative, and the U.S. Customs Service, 20 February 2003.

United States, High Seas Driftnet Fishing Moratorium Protection Act *16 USC 1826j HSDFMPA §609*.

United States, *Lacey Act*, Title 16. § 3372.

Western and Central Pacific Fisheries Commission (WCPFC), Conservation and Management Measure to Establish a List of Vessels Presumed to have carried out Illegal, Unreported and Unregulated Fishing Activities in the WCPO, *Conservation and Management Measure 2007-03*, 07 December 2007.

WCPFC, Record of Fishing Vessels and Authorisation to Fish, *Conservation and Management Measure 2004-01*, 10 December 2004.

WCPFC, *Summary Report of the Fourth Regular Session*, Tumon, Guam, 3-7 December 2007.

WCPFC, Technical and Compliance Committee (TCC), Fourth Regular Session. 2-7 October 2008, Pohnpei, Federated States of Micronesia, Conservation and Management Measure 2007-03: Outstanding Issues from WCOFC4, *WCPFC-TCC4-2008/12*, 29 August 2008.

WCPFC TCC, Fourth Regular Session, Pohnpei, Federated States of Micronesia, 2-7 October 2008, *Summary Report*, 7 October 2007.

4. The FAO Global Record of Fishing Vessels: Issues for Pacific Island States and the Forum Fisheries Agency

Gail Lugten*

Introduction

In 1993, the United Nations Food and Agriculture Organisation (FAO) concluded the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (hereafter referred to as the Compliance Agreement).¹ The primary aim of the Compliance Agreement was to address the increasing global problem of reflagged fishing vessels or vessels which were attempting to escape the jurisdiction (and control) of their flag State.² The Compliance Agreement proposed numerous significant measures, but for the purposes of this chapter, the provisions relating to the need for, and establishment of, a global record of fishing vessels, are of particular significance.³

History suggests that the Compliance Agreement may have been drafted too soon. Although it was a prompt response to the reflagging problem in 1993, the problem was to significantly magnify over the following years until 1997 when the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) became the first forum to expressly identify and label illegal, unreported and unregulated fishing (IUU fishing).⁴ It was soon apparent that

* The author wishes to acknowledge the intellectual contribution of Dr. Denzil Miller, Executive Secretary of the Commission for the Conservation of Antarctic Marine Living Resources, (CCAMLR, Hobart).

¹ FAO, Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, FAO, Rome, 1993, 41 ISBN 92-5-103834-1. In accordance with Article XI (1) of the Compliance Agreement, the Agreement entered into force on 24 April 2003 when the Republic of Korea became the twenty-fifth State to accept the Agreement. There are currently 38 instruments of acceptance: Albania, Angola, Argentina, Australia, Barbados, Belize, Benin, Brazil, Canada, Cape Verde, Chile, Cook Islands, Cyprus, Egypt, European Community, Georgia, Ghana, Japan, Madagascar, Mauritius, Mexico, Morocco, Mozambique, Myanmar, Namibia, New Zealand, Norway, Oman, Peru, Republic of Korea, St Kitts and Nevis, St Lucia, Seychelles, Sweden, Syrian Arab Republic, Tanzania, United States of America and Uruguay. (Note most recent acceptance by Brazil on 2 March 2009.)

² The existing legal regime on fishing for living resources of the high seas is covered in Articles 116-119 of the 1982 United Nations Law of the Sea Convention (LOSC) but as a mechanism to deal with reflagging of fishing vessels, the existing regime was inadequate. The Compliance Agreement aimed to interpret, in practical terms, the LOSC provisions.

³ Compliance Agreement Article IV, Records of Fishing Vessels; Article V, International Cooperation; and Article VI Exchange of Information.

⁴ The first appearance of the term "IUU" was in relation to Patagonian Toothfish fishing in the Southern Ocean, and it occurred in the 1997 annual meeting of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). Refer CCAMLR-XVI (1997) paragraphs 8.7-8.13. The preferred definition/explanation of IUU fishing is that offered in the FAO IPOA –IUU fishing (see Chapter 3 for detail). The FAO IPOA-IUU was adopted by consensus at FAO Committee on Fisheries (COFI) on 2 March 2001. Available online through Legal Materials at <http://www.fao.org>

combating IUU fishing would require broader domestic, regional and international action than simply becoming a party to the Compliance Agreement. Many States appear to have weighed up the effectiveness of the Compliance Agreement, and their cost/benefit analysis led them to reject the instrument as a remedy for IUU fishing. Consequently, the number of instruments of acceptance for the Compliance Agreement is sparse, its entry into force was slow, and its global record of fishing vessels has never been effectively realised.

Six years after the Compliance Agreement, the call for a Global Record of fishing vessels was restated with some urgency in the International Plan of Action (IPOA) for the Management of Fishing Capacity.⁵ Here, paragraph 18 provides, “while awaiting the entry into force of the [Compliance Agreement], States should support the establishment by FAO by the end of 2000 of an international record of fishing vessels operating in the high seas, following the model indicated in the Compliance Agreement.”⁶

The wheels of progress have turned slowly and the next call for the Global Record occurred on 9 March 2005 when the Ministerially-led Task Force on IUU Fishing on the High Seas agreed on the need to “establish a global information system on high seas fishing vessels in the form of a publicly available international database of information relating to the global high seas fishing fleet.”⁷

Also in 2005, the Rome Declaration on Illegal, Unreported and Unregulated Fishing identified and called for “new actions” to address IUU fishing including the development of:

A comprehensive global record of fishing vessels within FAO, including refrigerated transport vessels and supply vessels, that incorporates available information on beneficial ownership, subject to confidentiality requirements in accordance with national law.⁸

Finally in 2008, real movement occurred to support the calls for a FAO Global Record. From 25-28 February, FAO conducted an Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels, Refrigerated Vessels and Fishing Support Vessels (hereafter referred to as the Expert Consultation). The purpose of the consultation was to determine

⁵ Refer FAO website: www.fao.org/docrep/006/x3170e/x3170e04.htm (accessed 18 August 2008). The IPOA-Capacity was adopted by the COFI in February 1999.

⁶ The High Seas Fishing Vessel Authorisation Record (HSVAR) is not specifically mentioned in the Compliance Agreement. Instead, the HSVAR is a construct based on provisions for compiling and exchanging vessel-related data under Articles IV, V and VI of the Agreement. The HSVAR title for the database was invented by FAO.

⁷ High Seas Task Force, “How to Get Better Information about High Seas Fishing Vessels” (Paris, 9 March 2005) at www.high-seas.org/docs/HSTF_05_February_2005_Final.pdf (accessed 18 August 2008).

⁸The 2005 Rome Declaration on Illegal, Unreported and Unregulated Fishing at [ftp://ftp.fao.org/fi/DOCUMENT/ministerial/2005/iuu/declaration.pdf](http://ftp.fao.org/fi/DOCUMENT/ministerial/2005/iuu/declaration.pdf) (accessed 18 August 2008).

whether a Global Record could be developed and implemented successfully, and, if so, how could this success be maximised and maintained?⁹

The aim of this chapter is to examine the progress of the FAO Global Record and its likely impact on both individual Pacific Island States and on the Pacific Islands Forum Fisheries Agency (FFA).

Record versus Register

As an important preliminary point it is necessary to distinguish between the words “Record” and “Register.” The term “Record of fishing vessels” was defined in Article 1(d) of the Compliance Agreement as “a record of fishing vessels in which are recorded pertinent details of the fishing vessel.” This must be distinguished from a “Registry of fishing vessels.” “Registry” has different meanings at the national and regional levels.

At the national level, a Registry of fishing vessels involves the issuance of a certificate of registry, the right to fly the flag of a country, and is a record of ownership and associated mortgages and liens. Article 94(2)(a) of the 1982 Law of the Sea Convention (LOSC) provides that every State shall 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.¹⁰ However, despite this legal obligation in an international treaty which enjoys widespread support,¹¹ the reality is that a significant number of States do not do this. Furthermore, for those States which do operate a register of ships, there is no internationally agreed system with respect to the content, purposes, goals or even language, of vessel registries.

A Registry of fishing vessels can also exist at the regional level. Many regional fisheries management organisations (RFMOs) maintain a list (or record) of the vessels which are authorised to fish in their area, and they call this record “a vessel register.”¹² The FFA has a system which is unlike other RFMOs. The FFA, (which was established for the purpose of helping member States manage their exclusive economic zone (EEZ) fishery resources), has an obligation on

⁹ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, FAO Fisheries Report No. 865, p.1 paragraph 5.

¹⁰ UN Doc.A/CONF. 62/122.

¹¹ Currently the LOS Convention has 157 ratifications. The most recent State (at the time of writing) to ratify the Convention was Liberia on 25 September 2008.

¹² For example: Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR since 1997); Commission for the Conservation of Southern Bluefin Tuna (CCSBT since 2003); Western and Central Pacific Fisheries Commission (WCPFC since 2005); Northwest Atlantic Fisheries Organization (NAFO since 2004); South East Atlantic Fisheries Organisation (SEAFO, using national records established from March 2004); International Commission for the Conservation of Atlantic Tunas (ICCAT since 2003); North East Atlantic Fisheries Commission (NEAFC with a system of notification for authorisation to fish since 2007); Indian Ocean Tuna Commission (IOTC since 2003); and Inter-American Tropical Tuna Commission (IATTC since 2000) .

foreign fishing vessels to be listed on the FFA Vessel Register in order to apply for a national fishing license from an FFA member State.¹³ Any application which is incomplete, inaccurate or misleading is rejected. Registration is required on an annual basis upon payment of a substantial fee.¹⁴

In lay terms, the FAO Global Record is likely to be more akin to a database, than a State vessel registry which accords legal personality to a vessel, or an RFMO vessel record which authorises fishing.

The FAO Global Record will not follow the trend apparent in many RFMOs of distinguishing between “black listed vessels” and “white listed vessels.” In simple terms, a black listed vessel is a vessel which has been accused of some form of IUU fishing, and most black listed vessels will have reflagged more than once. A white listed vessel has a “clean” fishing record and can be granted RFMO or State authorisation to fish. These labels require a judgment or assessment, and FAO is unwilling to engage in such classifications. FAO is not a management body, it is a neutral body in the service of its members, and in accordance with its mandate, it would be illegal for FAO to make value judgements on the status of any fishing vessel. Therefore the FAO database is a simple record, and States, RFMOs, and non-government organisations (NGOs) can interpret the data on the record as they see fit.¹⁵

The Existing Regime under the Compliance Agreement (HSVAR)

The Compliance Agreement entered into force on 24 April 2003, and at the time of writing there are 38 instruments of acceptance.¹⁶ Australia, New Zealand and the Cook Islands are the only FFA member States which are also States Parties to the Compliance Agreement. The low level of instruments of acceptance given to the Compliance Agreement is not surprising. As mentioned above, the Compliance Agreement was barely drafted before it was out-of-date. The result is that comparatively few States have had the inclination or political will to accept the Compliance Agreement. Even less support is given to the vessel record system established by the Compliance Agreement: the High Seas Fishing Vessel Authorization Record (HSVAR).

The establishment and operation of HSVAR can be briefly outlined. Article IV of the Compliance Agreement requires each State Party to maintain a record of fishing vessels and ensure that all fishing vessels are entered on that record.

¹³ Baird, R. *The Development of a Comprehensive Global Record for Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels: An Analysis of the Practice of Regional Fisheries Bodies*, Consultant Paper produced for FAO Expert Consultation, Rome, February 2008; See Appendix G of *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, p. 25.

¹⁴ *Ibid.*

¹⁵ Report of the Expert Consultation on the Development of a Comprehensive Global Record, Note 9, paragraph 7.

¹⁶ FAO, Compliance Agreement, Note 1.

Article V deals with international cooperation, and parties are required to exchange information, including evidentiary material. Article VI elaborates the exchange of information whereby each party shall make available to FAO certain mandatory and discretionary data on each fishing vessel domestically recorded under Article IV of the Agreement. This mandatory data (paragraph 1) and discretionary data (paragraph 2) which are made available to FAO is stored on a FAO database referred to as the HSVAR. The data to be exchanged with FAO is listed in Article VI(1) and (2) of the Compliance Agreement:

1. Each Party shall make readily available to FAO the following information with respect to each fishing vessel entered in the record required to be maintained under Article IV:
 - a) name of fishing vessel, registration number, previous names (if known), and port of registry;
 - b) previous flag (if any);
 - c) International Radio Call Sign (if any);
 - d) name and address of owner or owners;
 - e) where and when built;
 - f) type of vessel;
 - g) length.
2. Each Party shall, to the extent practicable, make available to FAO the following additional information with respect to each fishing vessel entered in the record required to be maintained under Article IV:
 - a) name and address of operator (manager) or operators (managers) (if any);
 - b) type of fishing method or methods;
 - c) moulded depth;
 - d) beam;
 - e) gross register tonnage;
 - f) power of main engine or engines.

The 2008 Global Record Expert Consultation spent some time considering whether the HSVAR could be developed (and the Compliance Agreement amended) so that HSVAR could become the new FAO Global Record. However, it was made very clear that the HSVAR in its current form is a second-rate database, and inadequate to address the real purpose of a FAO Global Record which is to be a remedial tool in the fight against IUU fishing. Some specific weaknesses can be mentioned.

HSVAR has Poor Data

The HSVAR is limited by both the quantity and quality of data that it contains. Some States do not provide any data, and those that do, will often provide incomplete data. Neither the Article VI(1) compulsory data nor the Article VI(2) discretionary data are well provided to the HSVAR. New Zealand was singled out for its exceptional provision of comprehensive, clear data in excel

spreadsheet format, but clearly the New Zealand practice is the exception and not the norm.¹⁷

Restrictions Regarding the Size of Fishing Vessels and their Maritime Zones of Operation

Fishing vessels which are less than 24 metres in length are exempted from the Compliance Agreement. Furthermore, the Compliance Agreement is specifically restricted to the high seas. This means that the HSVAR does not apply to vessels engaged in IUU fishing within coastal zones or inland waters where a large amount of IUU fishing occurs. It also does not apply to the increasing number of fishing vessels operating in all maritime zones, which are “invisible” (not recorded) as they are less than 24 metres.

No Attempt to Deal with Beneficial Ownership

The HSVAR provides for data on “the owner.” Although it is a compulsory data requirement, the information is frequently not provided to FAO. Furthermore, where the owner’s name is provided to FAO, this will only be the name of the “legal owner” of the vessel. There is an increasing trend for vessels to have their real ownership vested in a beneficial owner. This is the party who controls the real activities and profits of the vessel whilst hiding behind the registered legal activity. The Expert Consultation had a mandate to consider the problem of “beneficial ownership” of vessels. Ultimately, it was decided to be too difficult. The Expert Consultation decided that data describing the identity of the vessel operator and manager would be more valuable as a remedial tool (since these people control the “operation” of the vessel, including any engagement in IUU operations), than the identity of the beneficial owner.¹⁸

This author disagrees with the findings of the Expert Consultation on the matter of beneficial ownership. It is submitted that although identification of operator managers is also important, these people are merely working on the instructions of the beneficial owner. Put simply and literally, “the buck stops with the beneficial owner.” This point was recognised by the 2005 Ministerially-led Task Force on IUU fishing on the High Seas which noted that the identification of beneficial owners was a vital part of combating IUU fishing and that it was surprising that such information was not contained in a “single and complete database or register of high seas fishing vessels.”¹⁹ It was also noted at the Second Joint FAO/IMO *ad hoc* Working Group where it was argued that whilst difficult to determine beneficial ownership, it was an important matter that

¹⁷ Fitzpatrick J. “Comprehensive record of fishing vessels, refrigerated vessels, supply vessels and beneficial ownership” 20 October 2007- FAO Discussion Paper.

¹⁸ FAO, *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, paragraph 21, “On the issue of beneficial ownership, it was considered that it could be difficult to obtain reliable information on beneficial owners, and that identifying sources of operational control of a vessel should be regarded as the more significant issue.”

¹⁹ High Seas Task Force, *How to Get Better Information About High Seas Fishing Vessels*, a Meeting of the High Seas Task Force, Paris, 9 March 2005.

needed to be addressed.²⁰ Working with colleagues in corporate law, banking law and taxation law, this author has examined possible processes for the identification and accountability of beneficial owners.²¹ It can be done. However, it would require a commitment to activity at the State level (domestic laws, banking, insurance etc.), rather than by public international law.

It is submitted that the immediate role for international law should be to flag the matter as important, and call on all States to address the subject of beneficial ownership. An example can be given from the FAO International Plans of Action. These instruments call for “National Plans of Action” whereby States are encouraged to develop and implement national laws that would give effect to international instruments.²² If the subject of “beneficial ownership” is ignored by international law because it is difficult, it will never be resolved. However, if the subject is raised now and flagged as important, then there is a reason for the United Nations (UN) or FAO to return to the subject in five or ten years and ask States why better progress is not being made with national laws to address beneficial ownership. The subject is of vital importance to many areas of international crime, not just IUU fishing.

Inadequate Recognition of the Needs of Developing States

The Compliance Agreement contains only a brief statement in Article VII on providing assistance to developing countries:

The Parties shall cooperate, at a global, regional, subregional or bilateral level, and, as appropriate, with the support of FAO and other international or regional organizations, to provide assistance, including technical assistance, to Parties that are developing countries in order to assist them in fulfilling their obligations under this Agreement.

This may have been a significant provision at the time of writing in 1993, but in 2008 it reads more like “lip-service” recognition on the plight of developing States. The reality is that if developing States are to effectively contribute to, and benefit from, the FAO Global Record, they will need extensive assistance. It has already been noted that IUU fishing is not a mere high seas problem. It is highly damaging in coastal zones under national jurisdiction and in inland

²⁰ United Nations Food and Agriculture Organisation *Flag State Implementation Report of the Second Joint FAO/IMO ad hoc Working Group on IUU Fishing and Related Matters*, 31 July 2007, paragraph 33.

²¹ Griggs, L. and Lugten, G. “Veil Over the Nets: Unravelling Corporate Liability for IUU Fishing Offences” in *Marine Policy* (2007) 31 pp. 159-168; and Bender, P. and Lugten, G. “Taxing Illegal Fishing: A Proposal for Using Taxation Law to Reduce Profiteering from IUU Fishing Offences” in *International Journal of Marine and Coastal Law* Vol. 22, No. 4, 2007, p. 513. For example, Griggs and Lugten recommend a suggested legal framework that includes: 1) disclosure of the corporate entity which must become transparent; 2) for an entity to gain the benefits of limited liability a minimum level of operating capital must be started with, and maintained throughout the life of the corporation; 3) harmonization across national boundaries; and 4) a swift regulatory response to any attempt to transfer assets or liabilities between jurisdictions.

²² For example, Articles 25-27 of the FAO IPOA- IUU.

waters. In developing States, IUU fishing occurs not only at the industrial fishing level, but also with small-scale commercial or artisanal fishers. If a vessel record is to work effectively at the national level, as well as the regional and global level, then all artisanal fishing vessels would need to be domestically registered. For many developing States, (Indonesia springs immediately to mind), this will be an onerous task. It will require extensive cooperation between developed and developing States. Developed States can provide assistance through the UN Development Programme, FAO and other specialized agencies, the Global Environment Facility (GEF), the Commission on Sustainable Development and other appropriate international and regional organisations and bodies. Forms of cooperation include financial assistance, human resource development, technical assistance, and transfer of technology.²³

Review Mechanisms

A final problem with the Compliance Agreement and the HSVAR is that there is no provision relating to review. Therefore, the Compliance Agreement has not remained current, relevant or practical. To amend the Compliance Agreement, it would be necessary to call the thirty-eight States parties (including the EU which represents 22 States) together and obtain support for the amendment of the Compliance Agreement and/or the HSVAR.

The Expert Consultation gave considerable discussion to whether the HSVAR could be developed into the new FAO Global Record. Ultimately, it was unanimously agreed that the weaknesses and limitations associated with the HSVAR suggested that “HSVAR could not be used for the global record without considerable investment, which would be better directed towards a new and more comprehensive system.”²⁴

How a FAO Global Record is Likely to be Different from HSVAR

The Expert Consultation agreed that the main goal of the FAO Global Record should be simple: to prevent, deter and eliminate IUU fishing and related activities, making it more difficult and expensive for vessels and companies acting illegally to do business.²⁵

However, the Expert Consultation added that additional goals for future uses of the Global Record could be identified:

²³ For an examination of the role of the World Bank and GEF in the implementation of the LOSC regime, refer Freestone, D. “The Role of the World Bank and the Global Environment Facility in the Implementation of the Regime of the Convention on the Law of the Sea” in Freestone, D., Barnes R. and Ong D. (eds) *The Law of the Sea: Progress and Prospects*, Oxford University Press, New York, 2006, p. 320.

²⁴ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, paragraph 38.

²⁵ *Ibid*, paragraph 29.

- improving the traceability of vessels and products regarding IUU detection;
- transparency of vessel information and operation;
- strengthening risk assessment for both governments and industry at all levels;
- supporting decision-making on a broad range of topics including fleet capacity, management, safety, pollution, security, statistics and related issues.²⁶

The Expert Consultation envisaged that the Global Record would become a “publicly available one-stop shop with many linkages to data sources such as international, regional, national and other databases.”²⁷ The Global Record should also be an essential tool in ensuring the practical effectiveness of port State measures and of binding and non-binding instruments that aim to address IUU fishing.²⁸

The Expert Consultation on the Global Record was not required to delve into technical details of the structure and content of the Global Record, but several basic or preliminary subjects were considered. The fundamental legal starting point was whether the FAO Global Record should be incorporated into a soft law instrument, or a hard law treaty, or whether, (like most databases,) the Global Record should exist without any foundation legal instrument.

The Expert Consultation considered 4 options:²⁹

1. HSVAR is renamed the FAO Global Record, and the Compliance Agreement in its current form becomes the legal instrument which underpins the Global Record. [However, to the extent that the Global Record is intended to improve oceans governance, and address IUU fishing, and the HSVAR does not address either of these subjects, this option was not considered appropriate to pursue.]
2. Developing or extending HSVAR in order to produce a new, extensive vessel database. This could be done by combining existing HSVAR data with data from Lloyds Register Fairplay, RFMOs registries and State registries, to quickly produce a comprehensive Global Record of vessels without a foundation legal instrument. That is, the database would no longer reflect the structure created by the Compliance Agreement. [This option may work, but the question remaining is whether States and RFMOs will continue to actively contribute data if there is no legal instrument compelling or encouraging them to do so.]
3. Amend both the Compliance Agreement and HSVAR in order to produce a Global Record, based on a binding legal instrument (the Compliance Agreement). The new regime should also correct any shortcomings in the existing regime. [Only the States parties of the

²⁶ *Ibid*, paragraph 30.

²⁷ *Ibid*, paragraph 31.

²⁸ *Ibid*, paragraph 32.

²⁹ *Ibid*, paragraphs 14 and 15.

Compliance Agreement can change the Compliance Agreement. This option would require the 38 States Parties (including the 22 member States of the European Union) to agree to numerous amendments. It is likely to be a time consuming process and the Global Record is an urgent issue.]

4. Attach the Global Record to a new legally binding instrument, such as the Legally-Binding Instrument on Port States Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (the PSM).³⁰ The Agreement on Port State Measures addresses most of the weaknesses that have been identified and listed in the Compliance Agreement: it applies to small fishing vessels; it applies to vessels operating in EEZs; it provides for an exchange of data between States, RFMOs and FAO; it makes extensive provision for the special needs of developing States; and it has review mechanisms.³¹

The FAO Legal Office offered a fifth alternative:

5. Linking the Global Record to an existing soft law instrument such as the FAO IPOA-IUU or the FAO IPOA-Capacity. The Record would clearly fit within both IPOAs where provisions recommend that States and RFMOs report to FAO, and that FAO collects all data for the purpose of establishing a global database. In support of this option, it was noted by the FAO legal office that follow-up on levels of compliance with voluntary versus binding instruments, suggested that voluntary instruments were more successful. It is submitted that more citable data and empirical analysis needs to be produced on this important submission. To suggest that voluntary soft laws are more effective than hard treaty laws impacts far beyond the international law of marine capture fisheries and would be a significant development in the making and implementing of all public international law.

The Expert Consultation supported the Global Record using some of the broad definitions employed in the Draft Legally Binding Instrument on Port State Measures:

“fishing” means:

- (i) the actual or attempted searching for, catching, taking or harvesting of fish; and
- (ii) engaging in any activity which can reasonably be expected to result in the locating, catching, taking or harvesting of fish.

“fishing related activities” means any operation in support of, or in preparation for, fishing, including the processing, transshipment, or

³⁰ Draft Legally-Binding Instrument on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. Draft as of 18 August 2008 available on line at <ftp://ftp.fao.org/EI/DOCUMENT/tc-psm/2008/2e.pdf>

³¹ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, paragraph 14.

transport of fish that have not been previously landed and offloaded at a port, as well as the provision of personnel, fuel and other supplies at sea.

“vessel” means any vessel, ship of another type, boat and other craft used for, equipped to be used for, or intended to be used for, fishing or fishing related activities.³²

The Expert Consultation proposed a phased-in approach to develop a global record commencing with vessels of 100GT and above, followed by vessels of 55GT and above but less than 100GT, and then finally by vessels of 10GT and above but less than 55GT. It was further agreed that the Global Record would need to use a system of unique vessel identifiers which would not change, even if a vessel changed flag, owner or name. This might be accomplished through a combination of Lloyds Register Fairplay vessel numbers (for vessels more than 100GT) and a FAO numbering system for vessels smaller than 100GT. It was agreed that more work needed to be done on unique vessel identification.³³

Perhaps the most startling advancement of the proposed FAO Global Record over the HSVAR is the perception (and plan) that data on the Global Record will be used, and driven, by market forces. The Expert Consultation was addressed by an Industry Expert who noted that 65% of all fish consumed in the European Union (EU) is imported from third countries, and IUU fishing is becoming an increasingly important issue in the commercial fish processing and marketing industries, the media, powerful NGOs such as Greenpeace, and consumers. Fish buyers and processors need public access to up-to-date data (such as the Global Record) so that they can adequately risk assess and manage their supply basis. Ideally, the Global Record will create a situation whereby if a vessel is not on the Global Record, it could be presumed to be an IUU vessel, and consumers (such as the EU) would not buy the fish.³⁴

Ultimately, the Expert Consultation believed that the Global Record would succeed where HSVAR has failed because it would be driven by both flag States and the harvesting industry in order to demonstrate transparency in the fishing operations of their fleets. Furthermore, and importantly, the Global Record will be driven by the retail market in order to meet the demands of consumers for non-IUU products.³⁵

³² Draft Legally Binding Instrument on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, Note 30, Article 1 (Use of Terms) and Note 9, Paragraph 33.

³³ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, paragraphs 49-52.

³⁴ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, paragraph 50.

³⁵ *Ibid*, paragraph 52.

The Role of the Pacific Islands Forum Fisheries Agency and Pacific Island States in the FAO Global Record

The urgency surrounding the need for the Global Record, and the operational strategies of how to get the database established quickly and extensively, tends to veil the fact that the Global Record will need to have long-term sustainability. From this perspective, the issue of ongoing data input is particularly important, and organisations such as the FFA, plus individual Pacific Island member States, will need to play a key role.

The following discussion looks at the obligation of RFMOs and States to exchange data (such as vessel registry/record details) with FAO for the purposes of creating and maintaining the Global Record.

From the LOSC, there is no systematic obligation on either States or RFMOs to exchange vessel data. Only Article 119(2) dealing with the conservation of the living resources of the high seas, comes close to addressing this issue when it provides:

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.³⁶

This would not compel either the FFA or Pacific Island States to participate in Global Record data exchange with FAO.

Similarly, the UN Fish Stocks Agreement is limited to straddling fish stocks and highly migratory fish stocks. It prefers a State and regional, (as opposed to global) approach to the resolution of fishery management problems. Only Article 2 of Annex 1 comes close to supporting an exchange of data between States, RFMOs and FAO:

States should compile fishery-related and other supporting scientific data and provide them in an agreed format and in a timely manner to the relevant subregional or regional fisheries management organization or arrangement where one exists. Otherwise, States should cooperate to exchange data either directly or through such other cooperative mechanisms as may be agreed among them.³⁷

The FAO IPOA-IUU urges States and RFMOs to report to FAO on their plans to prevent, deter and eliminate IUU fishing,³⁸ and the FAO is charged with collecting all relevant information and data³⁹ and establishing and maintaining

³⁶ United Nations Law of the Sea Convention, Note 10, Article 119(2) Emphasis by this author.

³⁷ Emphasis by this author.

³⁸ FAO IPOA-IUU, Note 4, Article 87.

³⁹ *Ibid*, Article 88.

a regional and global database.⁴⁰ However, the IPOA-IUU is a soft law instrument, and despite some argument that it has force as a customary international law,⁴¹ it carries no legally binding obligation for either the FFA or the Pacific Island States to exchange or contribute data to FAO.

The FAO Compliance Agreement is the only international instrument which requires parties to enter into cooperative agreements on a global, regional, subregional or bilateral basis.⁴² Article VI specifically deals with the exchange of mandatory and discretionary data on every fishing vessel to FAO for the purposes of the HSVAR database. Despite the clear application and relevance of the Compliance Agreement, two important points must be recalled. First, only three States from the FFA are member States of the Compliance Agreement: Australia, Cook Islands and New Zealand. Secondly, the Global Record Expert Consultation concluded that both the Compliance Agreement and the HSVAR were failed initiatives for the purposes of creating a FAO Global Record and the expense of resurrecting them would be better directed at launching a new project that would address the many weaknesses in the Compliance Agreement.

However, apart from the provisions of treaty law, there is a recognizable trend in the law of marine capture fisheries for States to cooperate with one another and with competent sub-regional, regional and global organisations. Kwiatkowska has described a “duty to cooperate.”⁴³ It can be argued that the duty to cooperate exists in international customary law, particularly in matters of marine resource conservation and management, such as the remedying of IUU fishing.

In fact, the customary law duty to cooperate is supported by numerous treaty references obliging States to cooperate on a variety of subjects including the conservation and management of EEZ⁴⁴ and high seas⁴⁵ fisheries, and, (in the case of the Compliance Agreement), on exchange of vessel data with FAO.⁴⁶

The international customary law duty to cooperate can be linked to the common law doctrine of obstruction. That is, it is an offence to obstruct or hinder without reasonable excuse, a person or body acting under statutory authority. Applied to international law, it may be an offence to obstruct or hinder a party acting under treaty law as there is an express obligation that

⁴⁰ *Ibid*, Article 92.

⁴¹ Lugten, G. “Soft Law with Hidden Teeth: The Case for a FAO International Plan of Action on Sea Turtles” in *Journal of International Wildlife Law and Policy*, Vol. 9, No. 2, 2006, pp. 155-173.

⁴² FAO Compliance Agreement, Note 1.

⁴³ Kwiatkowska B. “The Role of Regional Organizations in Development Cooperation in Marine Affairs” in Soons, A.H. (ed.) *Implementation of the Law of the Sea Convention Through International Institutions*, Law of the Sea Institute, Honolulu, 1990.

⁴⁴ Note for example the 1982 Convention, Articles 61(2), 64(1), 65, and 66(3)(b).

⁴⁵ *Ibid*, Articles 117 and 118.

⁴⁶ The duty to cooperate in international law is also clear in the UN Charter, and the ILO, FAO and GATT Constitutions.

States parties to a treaty will cooperate with one another, and (in the case of the Compliance Agreement) with the FAO.⁴⁷ The duty to cooperate can be effectuated in several ways, and the exchange (with FAO) of vessel data, (where release of that data does not breach confidentiality laws) can be seen as a basic first step.⁴⁸

Of some importance as a FFA contribution to the FAO Global Record is the fact that vessel and gear data has been compiled on the FFA Register since its inception in 1979. Each year, a physical description of vessels which are entered on the FFA Vessel Register, is presented to the Director General of the FFA. Vessel Register Forms include the physical characteristics of the vessel, its home port, the identity of the fishing master, the identity of the vessel master and owner, as well as a photograph of the vessel which includes its identifying characteristics.⁴⁹ At the present time, the FFA Vessel Register only covers foreign fishing vessels, and for a comprehensive picture of vessels operating in the region, it would be necessary for either the FFA to expand its database, or, more ideally, to jointly contribute data to FAO with other regional bodies such as the Secretariat of the Pacific Community – Oceanic Fisheries Programme (SPC-OFP) and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC). The WCPFC data is more limited because it does not actually indicate where its vessels are operating. The FFA are currently working with the SPC to get all combined vessel data on to the Tuna Fishery Data Management System (TUFMAN).

In a leading display of regional cooperation, the FFA and the SPC have concluded a 1997 Memorandum of Understanding between the Pacific Islands Forum Fisheries Agency and the Secretariat of the Pacific Community Concerning Collaboration in the Development, Conservation and Management of the Tuna and Related Resources of the Western and Central Pacific. The Memorandum has been revised three times with the most recent revision being 2007.⁵⁰ The Memorandum of Understanding provides for free exchange of information and documentation between the parties. Ideally such data exchange could also be extended to FAO for the purposes of establishing and maintaining the Global Record.

⁴⁷ Kirk, F.O. *Duty to Cooperate and Not Hinder*, Masters Thesis, US Defense Technical Information Centre. Accessed on line 23 April 2009 Refer:

<http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA196478>

⁴⁸ Baird, note 13 lists the “vessel data” held by the FFA as: name of vessel, register number, international radio call sign and name / address of owner / operator, pp. 12-13.

⁴⁹ Aqorau, T. “Illegal Fishing and Fisheries Law Enforcement in Small Island Developing States: The Pacific Islands Experience” in *International Journal of Marine and Coastal Law*, Vol. 15, No. 1, 2000, pp. 37-63 at 47.

⁵⁰ Available on line at http://www.spc.int/mrd/asides/Other_orgs/FFA/SPC-FFA-MOU3.pdf accessed 18 August 2008.

A 2002 report which reviewed the quality of FFA Vessel Register data noted problems of duplicated vessels, missing data and possible errors in data entry.⁵¹ Since that time, the FFA has endeavoured to update both their data bases and the quality of their data as part of the Regional Monitoring, Control and Surveillance (MCS) Strategy.

Specifically, in 2002 there was both a Vessel Monitoring System (VMS) Register and a Register of Foreign Fishing Vessels. Not all vessels on the VMS Register were on the latter register and so the Lawson report discovered inaccuracies or inconsistencies. Today, the two vessel registers have been integrated and the current FFA data is adequate for FFA purposes.

Nevertheless, as the FAO Global Record would rely on the provision of continuous, top-quality data, the FFA (and other RFMOs with predominant developing State membership) is likely to require special assistance.

Should the Pacific Islands Forum Fisheries Agency and the Pacific Island States “Cooperate” with FAO over the Global Record?

Ultimately, both the individual Pacific Island States and the FFA will need to decide whether the FAO Global Record is an initiative that is worth supporting. An appraisal will be offered by this author.

Against supporting the FAO Global Record, this author sees 3 arguments:

- that the concept has been tried (in the form of HSVAR) and has failed;
- that the personnel, technical and financial costs of assimilating and sustaining the Global Record data at a State and regional level, will be prohibitive for the developing economies of Pacific Island States and the FFA; and finally
- that many States are suffering from “instrument implementation fatigue”⁵² and the extensive and ongoing requirements of the Global Record will only exacerbate this problem.

First, regarding the argument that the concept has been tried and has failed, it must be remembered that although various forms of IUU fishing have existed for many years, the HSVAR was established before IUU fishing in its contemporary sense, was identified, labelled and addressed. That is, the HSVAR database was never intended to deal with the current problem of IUU fishing. The HSVAR deals with large vessels reflagging on the high seas. It does not deal with, and does not address, for example, dynamite or cyanide artisanal fishing within coastal waters, or unreported tuna longliners operating

⁵¹ Lawson, T. *Data Requirements of the SPC Oceanic Fisheries Programme and Status of Data*, Oceanic Programme Internal Report 47, Noumea, SPC-OFP, 2002, p.30.

⁵² Cochrane, K. and Doulman, D. “The Rising Tide of Fisheries Instruments and the Struggle to Keep Afloat” in *Fisheries: A future*, (Theme Issue of Philosophical Transactions of the Royal Society B: Biological Sciences), Vol. 80, 2005.

in EEZs. The modern problems of IUU fishing are vastly different to the issues that were a priority for the drafters of the Compliance Agreement. To effectively address IUU fishing, the Global Record would need to be a significantly different database to that of the HSVAR. The Expert Consultation recognised this fact, and noted the need for the Global Record to address the jurisdictional and technical shortcomings of the HSVAR.⁵³

A second reason why Pacific Island States and the FFA might elect to reject or not participate in the FAO Global Record, is a financial inability to do so. In a collaborative research project conducted with the World Fish Center in Penang, this author has examined aspects of fisheries law compliance by five developing archipelagic States. In brief, it was found that:

The full and effective implementation of [international fishery laws] poses a major challenge for any country. Developing countries (which often lack technical, financial and institutional capacity) are particularly vulnerable to excessive global programmes of development and change.⁵⁴

It has already been noted that the 1993 Compliance Agreement gives only the briefest recognition to developing States. In contrast, the 1995 UN Fish Stocks Agreement (UNFSA) set a new standard in legal provisions dealing with developing States. Here, Articles 24-26 elaborate an extensive regime for cooperation between States, and by using the expertise of specialised agencies within the United Nations.⁵⁵ The provisions acknowledge the vulnerability of developing States, the need to avoid adverse impacts on subsistence and artisanal fishers and how to improve monitoring, control, surveillance, compliance and enforcement. The provisions culminate in a proposal to establish a trust fund that would assist developing States to meet the costs of implementing the UNFSA.

This sophisticated legal regime to assist developing States has been reconstructed in the Agreement on Port State Measures where Article 22 recognises the special requirements of developing States.⁵⁶

The Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels noted:

Consideration should be given to establishing mechanisms which can provide financial assistance and expertise to developing countries for

⁵³ *Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels*, Note 9, Paragraph 13.

⁵⁴ Lugten, G. and Andrew, N. "Maximum Sustainable Yield of Marine Capture Fisheries in Developing Archipelagic States – Balancing Law, Science, Politics and Practice" in *International Journal of Marine and Coastal Law*, Vol. 23, No. 1, 2008, pp. 1-37.

⁵⁵ United Nations Development Programme, the Global Environment Facility, the Commission on Sustainable Development and other appropriate international and regional organisations.

⁵⁶ Draft Legally-Binding Instrument on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, Note 30.

capacity building. These could be similar to the Trust Fund established by the UN Fish Stocks Agreement or Article 22 of the draft binding legal instrument on port State measures. A UN system-wide approach for funding and support among other specialized UN agencies such as the World Bank and United Nations Environmental Program (UNEP) should be considered.

The willingness of developing countries to perform the necessary functions such as registration and data gathering should not be underestimated but provision of appropriate training, assistance with technology, financial resources and cooperative relationships would be needed.⁵⁷

If the FAO Global Record progresses, and some form of foundation instrument accompanies it, the instrument is likely to include firm statements that will enable assistance to be given to both individual Pacific Island States and the FFA.

In the six months following the Global Record Expert Consultation, this author has consulted with numerous delegates from Pacific Island States and the FFA, and the third reason why such entities might reject, or not actively participate in the FAO Global Record has been found to be the strongest of reasons. This is the issue of instrument implementation fatigue.

The subject of instrument implementation fatigue has been persuasively argued by Cochrane and Doulman who have examined the multitude of international fishery instruments since the LOSC, and the challenges for States and RFMOs to comply with every recommendation in this multitude of instruments.⁵⁸ The challenges of instrument implementation are compounded in developing State economies.

This discussion overlaps a subject raised above which is a fundamental starting point in the progression of the FAO Global Record – should the record have a soft or hard law at its base? It is submitted that any analysis on State and RFMO levels of instrument implementation fatigue must distinguish between the *obligation* to implement hard law treaties, and the *recommendation* to implement soft law instruments. Put simply, it is absurd for States to get too “fatigued” implementing instruments that do not have to be implemented.

⁵⁷ Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels, Note 9, paragraphs 43 and 44.

⁵⁸ Note for example the following environmental / sea / marine resource instruments: 1992 Convention on Biological Diversity; 1992 Agenda 21; 1993 FAO Compliance Agreement; 1995 UN Fish Stocks Agreement; 1995 Code of Conduct for Responsible Fisheries, 2001 FAO Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem, 2002 World Summit on Sustainable Development’s Plan of Implementation. To this list, could be added the 4 FAO IPOAs: seabirds, sharks, IUU fishing and fishing capacity, the FAO Technical Guidelines on Sea Turtles and the 2005 Rome Declaration on IUU fishing.

In February 2003, the twenty-fifth FAO Committee on Fisheries (COFI) meeting convened in Rome and considered, *inter alia*, a Report on Progress of the Implementation of the soft law Code of Conduct for Responsible Fisheries and its related International Plans of Action.⁵⁹ The Report revealed an appalling level of State interest in, and compliance with, the soft law FAO IPOAs. Only 57% of FAO members even bothered to respond to the FAO questionnaire.⁶⁰ Bearing this in mind, it is interesting to note that the FAO Legal Office now suggests that the previous five years (2003-2008) may have seen a complete turn-around by the international community of States so that voluntary soft law instruments are now more widely adhered to than hard law instruments.⁶¹

At this stage it is unclear whether the FAO Global Record will be linked to a hard law treaty (with an obligation for States to exchange vessel data), or a soft law instrument (with a recommendation that States exchange vessel data) or whether it will be a mere database with no legal instrument underpinning its existence, and reliant only on the good-will of States and RFMOs to support the FAO materials. This author strongly supports a hard law instrument at the base of the Global Record. Admittedly, some instrument implementation fatigue may be experienced by States which are struggling to keep up with the many international instruments of fisheries governance, but there have been no new hard global fishery laws since the 1995 UNFSA – thirteen years ago, and as such, the Global Record should take State and RFMO compliance priority over the many soft law instruments.

A number of points will now be made for Pacific Island States and the FFA to support the FAO Global Record.

First, and most obviously, the FAO Global Record will be an important tool in improving oceans governance. The global fight against IUU fishing is hampered by one overwhelming problem – lack of information. The problem applies to where IUU fishing is happening, who is engaging in it, what is its true financial damage and its true environmental damage. The FAO Global Record has the potential to become the biggest source of fishing vessel information in the world and it would be a publicly available database.⁶² However, the Global Record can only work if it is supported by States and RFMOs contributing their registry data in an ongoing exchange of information.

⁵⁹ Food and Agriculture Organisation of the United Nations, Committee on Fisheries COFI/2003/3.

⁶⁰ The survey was conducted in 2000 and 2002. The total responses in 2000 were 56% and in 2002 they were 57%. Some States responded in 2002 when they did not respond in 2000, but conversely there were other states responding in 2000 and not responding at all in 2002.

⁶¹ Refer above discussion on Option Five presented by the FAO Legal Office.

⁶² Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels, Note 9, paragraphs 27 and 31.

Secondly, as an international lawyer participating in the negotiations at the FAO Global Record, it was surprising to observe the role of private enterprise (such as Lloyds Register Fairplay) and seafood industry representatives in the negotiation and progression of public international law. It has been noted above that the Global Record is expected to be driven by market forces: if your boat is not on the list, it could be presumed to be an IUU vessel, and you will be unable to sell your fish.⁶³ If powerful trading blocks such as the EU take a commercial stand in favour of the Global Record, the global fishing fleet will need to pay attention. It was further pointed out by an industry expert present at the Expert Consultation that if a NGO such as Greenpeace, directs its members to only purchase fish from Global Record vessels, the European seafood industry will be forced to pay attention. Green groups have enormous market clout within the EU. The Pacific Island States and the FFA should aim to be at the forefront of accessing this preferred market choice by supporting the global record.

Thirdly, it has been mentioned that the Global Record has both urgent and aspirational goals. As part of its aspirational goals, data on the record will be used to: improve the traceability of vessels and their fish products; strengthen risk assessment for both governments and industry; and to support decision-making on topics such as fleet capacity, safety at sea, pollution, and vessel security. It will be a vital tool in the armoury of flag and port State jurisdiction, and in the fighting of transnational fishing crimes.⁶⁴ Put simply, the Global Record aims to expose illegal and improper fishing activity.

Finally, it has been mentioned that it is thirteen years since the international community's last global hard law fisheries management treaty. In the intervening period, the leadership of much fisheries governance has moved away from global organisations and into the hands of proactive RFMOs. However, the Global Record is a clear example of a "big picture" project that can only be done at the global level. Ecosystems are inter-connected, fish markets are trans-national, and the philosophical discipline is public international law. These factors necessitate a global approach to dealing with the subject. The scope of the Global Record will be world-wide. It will aim to include all UN specialised agencies, all coastal States, all RFMOs and private enterprise corporations. Ultimately, it is not unfeasible that the Global Record could totally change the way we manage, catch and purchase our fish and fish products.

Conclusion

This chapter has examined a potential new international instrument to improve oceans governance – the FAO Global Record of Fishing Vessels. It has considered the historical origins of, and formal calls for, a global vessel

⁶³ *Ibid*, paragraphs 49 and 50.

⁶⁴ *Ibid*, paragraph 30.

database, the FAO Compliance Agreement and HSVAR as a prototype of the Global Record; how the Global Record would differ from the prototype; the potential role of the FFA and individual Pacific Island States in establishing and maintaining the Global Record; and finally an evaluation of whether the Global Record is good for the region.

This text is to commemorate and celebrate the thirtieth anniversary of the Pacific Islands Forum Fisheries Agency. In 1979 the FFA led the way with regional fisheries management based on a vessel register system that was unlike any other. It would be encouraging to see (thirty years later) the FFA take another leading stand by using its regional and State registry data to promote the FAO Global Record.

Bibliography

Primary Sources

1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

1997 Annual Meeting Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR-XVI).

2008 Draft Legally-Binding Instrument on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.

2005 High Seas Task Force, “How to Get Better Information About High Seas Fishing Vessels.”

2007 UNFAO Flag State Implementation Report of the Second Joint FAO/IMO ad hoc Working Group on IUU Fishing and Related Matters.

1999 UNFAO International Plan of Action Capacity.

2001 UNFAO International Plan of Action To Prevent Deter and Eliminate Illegal Unreported and Unregulated Fishing.

2005 Rome Declaration on Illegal, Unreported and Unregulated Fishing.

2008 Report of the Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels.

1982 United Nations Law of the Sea Convention.

Secondary Materials

Aqorau T. “Illegal Fishing and Fisheries Law Enforcement in Small Island Developing States: The Pacific Island Experience” in *International Journal of Marine and Coastal Law*, Vol. 15, No. 1, 2000, 37-63.

Bender P. and Lugten G. “Taxing Illegal Fishing: A Proposal for Using Taxation Law to Reduce Profiteering from IUU Fishing Offences” in *International Journal of Marine and Coastal Law* Vol. 22, No. 4, 2007, 1-28.

Baird R. “The Development of a Comprehensive Global Record for Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels: An Analysis of the Practice of Regional Fisheries Bodies” in Appendix G of *Report of the*

Expert Consultation on the Development of a Comprehensive Global Record of Fishing Vessels (2008).

Cochrane K. and Doulman D. “The Rising Tide of Fisheries Instruments and the Struggle to Keep Afloat” in *Fisheries: A Future*, Theme Issue of the Philosophical Transactions of the Royal Society B: Biological Sciences, 2005.

Freestone D. “The Role of the World Bank and the Global Environment Facility in the Implementation of the Regime of the Convention on the Law of the Sea” in Freestone D., Barnes R. and Ong D. (eds) *The Law of the Sea: Progress and Prospects*, Oxford University Press, New York, 2006.

Griggs L. and Lugten G. “Veil Over the Nets: Unravelling Corporate Liability for IUU Fishing Offences” in *Marine Policy* No. 31, 2007, 159-168.

Kirk F.O. “Duty to Cooperate and Not Hinder” Unpublished Masters Thesis, US Defence Technical Information Centre, accessed on line 23 April 2009 at <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA196478>

Kwiatkowska B. “The Role of Regional Organisations in Development Cooperation in Marine Affairs” in Soons A.H. (ed) *Implementation of the Law of the Sea Convention through International Institutions*, Law of the Sea Institute, Honolulu, 1990.

Lawson T. “Data Requirements of the SPC Oceanic Fisheries Programme and Status of Data” in *Oceanic Programme Internal Report 47*, Noumea, SPC-OFP, 2002.

Lugten G. “Soft Law with Hidden Teeth: The Case for a FAO International Plan of Action on Sea Turtles” in *Journal of International Wildlife Law and Policy* Vol. 9, No. 2, 2006, 155-173.

Lugten G. and Andrew N. “Maximum Sustainable Yield of Marine Capture Fisheries in Developing Archipelagic States – Balancing Law, Science, Politics and Practice” in *International Journal of Marine and Coastal Law*, Vol. 23, No. 1, 2008, 1-37.

5. Lessons from the Toolbox ~ Using Vessel Monitoring System Data in Enforcement Proceedings

Alexa A. Cole

Introduction

In the monitoring, control and surveillance (MCS) world, we talk a lot about tools. It is about taking what is often intangible and applying discrete, tangible and useful tools in order to make enforcement more approachable. They are not gadgets but mechanisms whereby enforcement capacity is enhanced. Satellite-based vessel monitoring systems (VMS) are tools. In the fisheries MCS world, VMS, while perhaps not revolutionary, has indeed forever changed our ability to combat illegal, unregulated and unreported (IUU) fishing. Confronted with vast swaths of ocean, domestic and international laws to enforce, unruly fish with no regard for boundaries, and perpetually insufficient MCS assets and resources, domestic and regional fishery management organisations (RFMOs) have embraced the potential of VMS.

The challenge for prosecutors is to use the evidence from new and untested tools to successfully prosecute violations. There is little more frustrating for a prosecutor than the inability to use good evidence to prosecute violations. A prosecutor never wants to let the enforcement team down by not adequately educating and persuading the court¹ of the utility and reliability of what may be perceived as a technically complicated enforcement tool. In the United States (US), we are fortunate that there is a small group of about seven judges that hear the vast majority of our fisheries enforcement cases. As a result, we were able to quickly introduce VMS to these judges and educate them as to its capabilities; as such, we are now typically able to strip down our presentations to the court about VMS and rely on the court's prior understanding of its basic elements and functions. However, in other jurisdictions, prosecutors may not be so fortunate and must constantly educate and inform new judges on the utility and reliability of VMS data for fishery enforcement purposes.

This chapter is intended to convey some of the “lessons learned” in the use of VMS data in enforcement proceedings. Initially, it touches briefly on what VMS

¹ For the purposes of this chapter, the term “court” will apply generically to civil and criminal, administrative and judicial, proceedings. Every legal system has its own standards of proof, rules of procedures, rules of evidence, and evidentiary burdens, which among other things may significantly alter the ability or method to present VMS evidence in court. The information provided herein is intended to be used generally and adapted as necessary to individual legal systems.

is, how it is used and its introduction into US fisheries management. From there, it focuses with some detail on the first US court case to rely solely on VMS data. The following section outlines the use of VMS data in practical terms of how we present the evidence to the court. Finally, it concludes with some thoughts on the limits of VMS and the need for more, not less, enforcement resources as a result of its use.

Background

There are few people in the fisheries management or enforcement world currently who are unfamiliar with satellite-based VMS.² Despite this, many references to VMS still describe it as new or emerging technology. In the US, the genesis of our VMS program occurred almost twenty years ago.³ It began with a pilot program in the Hawaii-based pelagic longline fishery to support enforcement of newly-created management areas closed to longline fishing.⁴ Before the government began to require the use of such technology, it first needed to test how and whether it worked and to evaluate it as a technique that would withstand judicial review. After some initial encouraging trials, the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service funded a three year pilot project beginning in January 1995.⁵

The pilot project proved to be “an effective surveillance and enforcement tool, providing a level of monitoring that would not be possible with traditional methods.”⁶ VMS immediately opened a window into the ocean for management and enforcement by allowing authorities to conveniently track the location and monitor the activity of vessels in management areas of particular interest. At around the same time, there were successful trials conducted in other fisheries around the globe and the system was quickly adopted by many enforcement authorities.⁷ Satellite-based VMS systems are described by the Food and Agriculture Organisation (FAO) as:

comprised of several components. Each participating vessel must carry a VMS unit. This shipboard electronic equipment is installed permanently on board a fishing vessel and assigned a unique identifier. Most shipboard VMS equipment types use satellite communication systems that have an

² For the purposes of this chapter all references to VMS will be to satellite-based vessel monitoring systems.

³ Harman, R.F., and Yamashita, S.Y. *Hawaii Fishing Vessel Monitoring System: Report of the Pilot Project*. National Marine Fisheries Service, Office of Enforcement, Southwest Region, Honolulu, Hawaii, 1997. *Appendix A – Chronology of VMS Activities*.

⁴ *Ibid* at 1-2.

⁵ *Ibid* at 3.

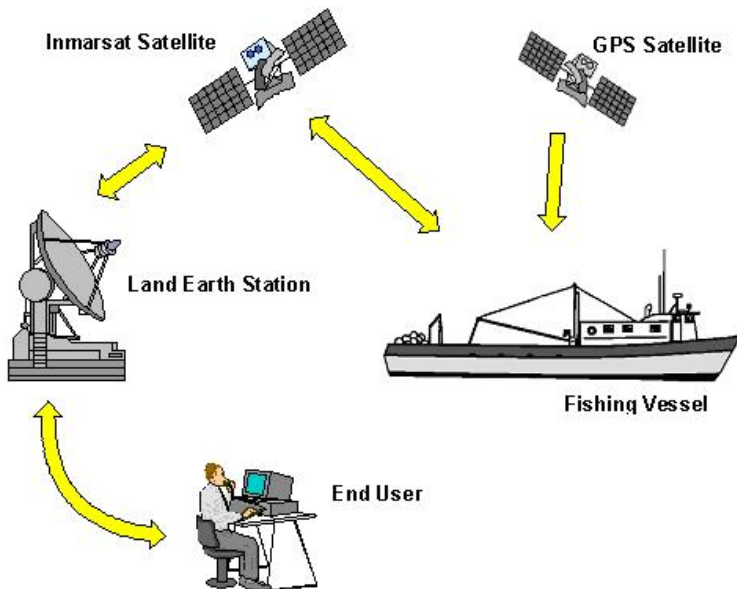
⁶ *Ibid* at 6.

⁷ Cacaud, P. *Legal Issues Relating to Vessel Monitoring Systems*, FAO / Norway Government Cooperative Programme, GCP/INT/648/NOR, Field Report C-1, Supp. 2, FAO, Rome, 1999, at 4.

integrated Global Positioning System (GPS). The system calculates the unit's position and sends a data report to shoreside users. The standard data report includes the VMS unit's unique identifier, date, time and position in latitude and longitude.⁸

The VMS data are used by MCS personnel by plotting it on a chart to depict the location, or in the case of multiple coordinates, track of a vessel in relation to management areas, zones or boundaries.⁹

Figure 1: Component Diagram of Hawaii Vessel Monitoring System¹⁰



With the success of our first VMS pilot program, the use of VMS in fisheries management in the US expanded to other US fisheries around the country.¹¹ Similar expansions were taking place in the world's oceans as interest in the use of VMS in fisheries management spread quickly.¹² Sovereign nations and

⁸ Food and Agriculture Organisation of the United Nations, Fishing Vessel Monitoring Systems, *Introduction to VMS fact sheet*, <http://www.fao.org/fishery/vms/2/en>

⁹ *Ibid.*

¹⁰ Harman and Yamashita, at 3.

¹¹ Eg 50 C.F.R. § 622.9 (South Atlantic rock shrimp and Gulf reef fish); 50 C.F.R. § 635.69 (Atlantic Highly Migratory Species); 50 C.F.R. §§ 648.9 and 648.10 (Northeastern fisheries); 50 C.F.R. § 660.312 (West Coast groundfish); 50 C.F.R. § 665.25 (Western Pacific Pelagic fisheries).

¹² Cacaud, P., 1999, at 4.

international fishery management organisations, or bodies, quickly came to the same conclusions. It was based on a general recognition of “the limitations of conventional MCS measures ..., essentially the prohibitive costs of carrying out such measures, especially observer programmes and naval and aerial surveillance operations throughout extensive exclusive economic zones (EEZs), marine areas which in certain cases exceed several fold the national land area.”¹³

As a result, VMS has become a mainstay in NOAA’s enforcement case packages. It is regularly used both in conjunction with traditional documents such as logbooks, catch and effort data, observer reports, and boarding reports, and on its own. VMS data was incorporated into the suite of enforcement tools available to investigative agencies to monitor the activities of fishing vessels carrying VMS units. VMS data has been instrumental in increasing NOAA’s ability to protect and manage closed areas, and often plays a decisive role in a prosecutor’s decision to charge a case.

Case Study – *Lobsters, Inc.*

Although NOAA was regularly using VMS as evidence in its enforcement cases from the mid-90’s onward, it was not until December 2001, that NOAA received its first reported decision involving VMS evidence.¹⁴ *Lobsters, Inc.* involves the F/V Independence which was charged with unlawfully entering a closed area off the coast of New England. This was the first fisheries prosecution in the United States that relied on VMS evidence as sole proof of entry into a closed area.

In June 2000, the Respondents, Lobsters Inc. and Lawrence Yacubian, were charged with entering a closed area on two occasions in December 1998, as well as making false statements to an authorized officer.¹⁵ NOAA assessed, jointly and severally, a civil penalty of US\$250,000, and sought to revoke the vessel’s Federal fishing vessel permit.¹⁶ The Respondents contested the charges against them and a civil administrative hearing was held in June 2001 before an Administrative Law Judge (ALJ).

For the first count of entering a closed area, NOAA relied solely on VMS evidence.¹⁷ In order to prevail on this count, the attorneys¹⁸ had to convince the court of the reliability both of the VMS itself and of NOAA’s use of the VMS

¹³ *Ibid* at 3.

¹⁴ *In the Matter of Lobsters, Inc. and Lawrence Yacubian*, 2001 WL 1632538 (N.O.A.A.).

¹⁵ *Ibid* at 1-2.

¹⁶ *Ibid*.

¹⁷ For the purpose of this chapter, the analysis of the *Lobsters, Inc.* case will focus solely on the first count which involved VMS only as support for the violation. Discussion of the other counts can be found in the court decisions cited throughout.

¹⁸ Juliand, C. R. and MacDonald M. J., NOAA Office of General Counsel, Northeast Region.

data. The first step, taken by the NOAA prosecutors prior to charging, was to review the full scope of potential violations shown by the VMS data, and choose the strongest case. The VMS data indicated the vessel had entered the closed area, at various incursion depths, more than 25 times over the course of three days.¹⁹ Instead of charging each individual incursion, NOAA chose to focus this first VMS-only case on the deepest incursion.

Prior to the commencement of the civil administrative hearing on the merits, the Court conducted a preliminary session on the reliability of the VMS technology.²⁰ In the US, such a hearing is known as a *Daubert*²¹ hearing based on standards set forth by the US Supreme Court. At the hearing, NOAA presented several expert witnesses to the Court to testify as to the reliability of the VMS used in that case – Boatracs.²² NOAA’s procedural rules governing administrative hearings do not provide guidance to the Court on determining the reliability of evidence presented by expert witnesses.²³ Therefore, the Court relied on the Federal Rules of Evidence (FRE) to guide it during the *Daubert* hearing.²⁴

Based on his reading of the FREs, the Judge qualified three outside experts²⁵ on the subject of reliability of the Boatracs technology.²⁶ The Judge qualified the Chief Operating Officer of Boatracs, Charles J. Drobny, as “an expert on the operation or workings of the Boatracs system,” but did not qualify him to offer an opinion on the reliability of the system.²⁷ In addition, NOAA offered and the Court admitted reports from each of the three experts on the reliability of the system, as well as a report from the United States Coast Guard (Coast Guard), entitled *Eighth District BOATRACS Test and Evaluation Final Report*,²⁸ which provides a detailed description of the Boatracs system.²⁹

¹⁹ *In the Matter of Lobsters Inc. and Lawrence Yacubian*, National Oceanic and Administration, Agency’s Initial Brief at 3.

²⁰ *Lobsters Inc.*, 2001 WL 1632538 at 3.

²¹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). *Daubert* held that the Federal Rules of Evidence governed the admissibility of scientific evidence and imposed a “gatekeeping” responsibility on trial courts to ensure that scientific evidence, in order to be admissible, must be not relevant but reliable. *Kumho Tire v. Carmichael* later extended this standard to all expert evidence. See *Kumho Tire v. Carmichael*, 526 U.S. 137 (1999).

²² *Lobsters Inc.*, 2001 WL 1632538 at 4.

²³ 15 C.F.R. Part 904 (2008).

²⁴ *Lobsters Inc.*, 2001 WL 1632538 at 3 – 4 (*citing* Federal Rules of Evidence 702, 703 and 704 particularly).

²⁵ Benjamin Peterson, PhD; Peter Dana, PhD; and LCDR Gregory W. Johnson

²⁶ *Ibid* at 4.

²⁷ *Ibid*.

²⁸ *Advanced Communications Technology: Eighth District BOATRACS Test and Evaluation Final Report*, United States Coast Guard, Office of Research and Development, July 1998.

²⁹ See *Lobsters Inc.*, 2001 WL 1632538 at 4.

After hearing testimony from all of the expert witnesses, the Court found the Coast Guard report most persuasive, basing its decision on the reliability of the VMS *solely* on the report.³⁰ The Coast Guard commissioned the study in order “to corroborate or confirm the claims of BOATRACS that the system was reliable enough to report accurately geographic positions 95% of the time within 300 meters of the actual position.”³¹ In its review of the study, the Court found it:

to be an off the shelf study and was not prepared for the purposes of litigation. It was prepared prior to the time that might be in question in this case. Thus, I have concluded that the Coast Guard study ... presented ... statistically sound and reasonable conclusions regarding the reliability and the accuracy of the system’s ability to identify the position of fishing vessels employing that system on board that vessel.³²

Ultimately, the Court concluded that “the BOATRACS system is a reliable system reporting positioning data accurately 95% of the time within 300 metres of the actual position ... [and] that the system would reliably report positions 98 to 99 percent of the time within 400 to 450 metres of the actual position.”³³

Although the Court’s conclusion on the reliability of the Boatracs system was positive, the Court’s sole reliance on the Coast Guard study begs the question of what would have happened without it. In a case without an independent outside study, would the expert witnesses have persuaded the Court? It is impossible to know, but it underscores the importance of good evidence, certainly, and of presenting the evidence you have in a compelling and effective manner. The Court’s finding that the Boatracs technology was reliable for determining a fishing vessel’s geographic position enabled NOAA to proceed with prosecution of its case.³⁴

NOAA had to prove its case by a preponderance of the evidence; once it had done so, the burden shifted to the Respondents.³⁵ In presenting its evidence to establish its *prima facie* case that the F/V Independence was unlawfully inside a closed

³⁰ *Ibid* at 5.

³¹ *Ibid.*

³² *Ibid.*

³³ *Ibid.*

³⁴ *Ibid.*

³⁵ *Steadman v. S.E.C.*, 450 U.S. 91, 100-03 (1981); see also *Herman & MacClean v. Huddleston*, 459 U.S. 375, 390 (1983)(holding that the preponderance of the evidence standard has been interpreted to mean that NOAA must show that it is more likely than not that the Respondents committed the violations as charged); *Dept. of Labor v. Greenwich Collieries*, 512 U.S. 267 (1994) (defining further the burden of proof under the APA to equate to a “burden of persuasion;” in which NOAA has the obligation to persuade the trier of fact of the truth of a proposition); *In the Matter of Roque*, 1999 NOAA LEXIS 8 at 69, *aff’d Roque v. Evans*, 2003 U.S. Dist. LEXIS 541 (D. Mass)(*citing Steadman*, 450 U.S. at 101) (finding that once the Agency “has established the allegations ... by a preponderance of the evidence, the burden of producing evidence then shifts to the Respondents to rebut or discredit the Agency’s evidence.”).

area, NOAA relied on testimony and evidence from NOAA and the Coast Guard detailing the track of the vessel by VMS, and the interception and subsequent boarding of the vessel. After reviewing the testimony provided by the government and the Respondents, the Court held that “[t]he record demonstrates respondents were within Closed Area II at the time and place shown in the Boatracs data. Moreover, the Boatracs data further demonstrate that this was not an incidental intrusion into the closed area, but between December 6 and December 8 there were numerous such intrusions.”³⁶

Although NOAA chose to charge only the most egregious incursion into the closed area, the testimony and evidence of the other less egregious incursions were key elements in the Court’s holding. NOAA successfully used its prosecutorial discretion to focus the Court’s attention on one significant incursion for liability purposes and used the other incursions to bolster its civil penalty assessment and permit sanction recommendation. In its determination of the civil penalty, the Court stated that “[t]he Respondents’ entry into Closed Area II was not incidental, accidental or in the course of transit through the area. It was numerous and to fish for scallops.”³⁷ The Court further characterised it as “the most serious intrusion into a closed area”³⁸ and found “Respondents’ claim that they did not intentionally intrude ... incredible.”³⁹ As a result, the Court upheld NOAA’s civil penalty assessment of US\$250,000 and permanently revoked the Respondents’ Federal fishing permits.

Respondents appealed for discretionary review by the NOAA Administrator in January 2002. The NOAA Administrator declined discretionary review and therefore the Court’s decision became the final agency decision in July 2003.⁴⁰ In August 2003, Respondents appealed the decision to the US District Court for the District of Massachusetts.⁴¹

The District Court first addressed the limited scope of its review of administrative proceedings, recognising that its review is “limited to the administrative record that was before the agency at the time the decisions were made.”⁴² The Agency’s decision can only be set aside “if not supported by substantial evidence,”⁴³ otherwise it is “the prerogative of the ALJ to draw inferences and make credibility assessments, and [courts] may not disturb his judgment and the [agency’s]

³⁶ *Ibid* at 8.

³⁷ *Ibid* at 13.

³⁸ *Ibid* at 14.

³⁹ *Ibid* at 15.

⁴⁰ *In the Matter of Lobsters Inc, and Lawrence Yacubian*, 2003 WL 22000640 (N.O.A.A.).

⁴¹ *Lobsters, Inc. et al. v. Evans*, 346 F.Supp.2d 340, 343 (D. Mass. 2004).

⁴² *Ibid* (citing 5 U.S.C. § 706; *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971); *Camp v. Pitts*, 411 U.S. 138 (1973)).

⁴³ *Ibid* (citing 16 U.S.C. § 1858(b); 5 U.S.C. 706(2)).

endorsement of it so long as the findings are adequately anchored in the record.”⁴⁴ With this in mind, the District Court, as did the administrative Court, began its analysis with *Daubert*.

The District Court found that although “strictly speaking ... *Daubert* does not apply, ... ‘the spirit of *Daubert*’ does apply to administrative proceedings because ‘[j]unk science’ has no more place in administrative proceedings than in judicial ones.”⁴⁵ In analyzing the administrative court’s *Daubert* analysis of the Boatracs evidence, the District Court found that there was substantial evidence to support the ALJ’s conclusion that Boatracs was reliable.⁴⁶ As a result, the District Court held that “[t]he record as a whole, including the Boatracs evidence, ... contains substantial evidence from which the ALJ and Agency could have determined, by a preponderance of the evidence, that the Independence did enter Closed Area II on December 8 and 11, 1998.”⁴⁷ Although the District Court upheld the ALJ’s finding of liability regarding the closed area incursions, it vacated the civil penalty assessed and permit sanction imposed, and remanded the case back “to NOAA for *de novo* reconsideration of civil penalties and permit sanctions.”^{48,49} Issues relating to the civil penalty and permit sanction were ultimately resolved through a settlement agreement between the parties.

Practicalities of Using VMS Evidence in Court

There are, without doubt, legal hurdles associated with the use of VMS data in enforcement proceedings. As discussed above, in the US, we must contend with the standards established under *Daubert* and its progeny to effectively introduce new scientific or technological evidence to a court. Prosecutors in other countries must contend with their own evidentiary burdens. It is commonly recognized that “[t]he question of whether or not VMS data can be used as evidence in legal proceedings relating to fisheries offences and, if it can, the weight to be accorded to it, will ultimately depend on the applicable rules of evidence in the jurisdiction

⁴⁴ *Ibid* (citing *Bath Iron Works Corp. v. United States Dep’t of Labor*, 336 F.3d 51 (1st Cir. 2003)).

⁴⁵ *Ibid* at 344 (citing *Niam v. Ashcroft*, 354 F.3d 652, 660 (7th Cir. 2004)).

⁴⁶ *Ibid* at 345.

⁴⁷ *Ibid*.

⁴⁸ *Ibid* at 349.

⁴⁹ The District Court’s decision regarding the civil penalty amount focused on whether NOAA followed its own policies regarding the consideration of prior offenses in the setting of a civil penalty. However, the District Court’s decision also included an inscrutable footnote stating that “[i]n any event, considering the nature of the offenses and all other relevant circumstances, the severity of the monetary penalty and the *permanent* revocation of plaintiffs’ fishing permits are deemed excessive in this particular case.” *Ibid* (emphasis in original). Such a comment without further discussion or analysis provides little guidance as to the District Court’s thinking on this point.

concerned.”⁵⁰ However, the practicalities and mechanics of using VMS in court have commonalities that transcend jurisdictional requirements.

Discussed below are some of the fundamentals of presenting VMS evidence to a court. This discussion assumes the successful establishment of the reliability of the VMS data, or, better yet, that the reliability of the data went unchallenged. The reality is, however, “until such time as there is either a ruling from a higher court on its admissibility or its use becomes so routine that it is not questioned prosecutors will generally need to be aware of the need for expert testimony.”⁵¹

Establishing the Credibility of the VMS Program

It is not the VMS data alone which must be credible. In order for a case to succeed on the basis of, in part or in whole, VMS data, you must also establish the credibility and veracity of the entire program created to monitor, review, safeguard and track the VMS. A VMS program:

must be implemented and operated by people with an understanding of surveillance, computers and communications. In addition to the technical skills, however, the VMS staff must also have a comprehensive knowledge of the regulated fishing industry, including operations and activities. This knowledge is required to reliably interpret the information provided by the VMS, and also to plan and implement changes to the VMS and responses to provided information.⁵²

In presenting VMS evidence to the court, the program is as much on trial as the VMS data. In other words, you must be prepared to answer the who, what, where, when and how of the response to the violation detected using VMS.

VMS is not a problem-free enforcement tool. This alone does not defeat its efficacy as evidence, but it means that potential problems must be addressed and disposed of directly and up front. What possible scenarios could have occurred that might compromise or affect the VMS data? Did your VMS program check or conduct any recent reviews or audits to ensure that they did not occur? If they occurred, what corrective steps were taken to ascertain whether they affected the data in this case? Frequently, the best preparation for such questions in court is to

⁵⁰ *Evidential Value of VMS Position Reports*, (FISH/2002/11), Final Report, Marine Resources Assessment Group Ltd, April 1 2004, (MRAG Report). The MRAG Report documents a study intended “to assess the extent to which VMS data has successfully been used as evidence in legal proceedings relating to fisheries offences.” The report was submitted in April of 2004 to the European Commission.

⁵¹ *Ibid* at 51.

⁵² Food and Agriculture Organisation of the United Nations, Fishing Vessel Monitoring Systems, *VMS Components fact sheet*, <http://www.fao.org/fishery/vms/6/en>

have created a standard checklist or procedure that is used in every case.⁵³ By regularising the process, you signal to the court your awareness that there can be problems, but minimise their likely significance to the specific case by showing such ground-truthing is a routine activity.

If you can demonstrate in a robust fashion that the actions taken in *this* case were the same as are taken in *every* case, the courts will place greater weight on the overall credibility of the program. Witnesses from the VMS program should be prepared to detail their role in the process from initial suspicion of illegal activity through to the recommendation for prosecution. In particularly complex cases, VMS program personnel should prepare a memorandum for the case file outlining all of their actions on the case. More routinely, at least in the US, VMS personnel will prepare a memorandum that will accompany the VMS raw data, along with any graphical depictions, that outlines the known reliability of the VMS system, any anomalies in the given case, and, depending on the person's expertise, an analysis of the VMS track *vis-à-vis* a violation. These memoranda can be comprised essentially of boilerplate language that is adapted to the facts of a specific case.

Another potential area of questioning by both courts and defendants relates to the VMS program's data security and integrity. "To a certain extent the evidential value of VMS position reports could depend on the verifiability (authentication and integrity) of the data and the level of confidence in the accuracy of the system, data and its traceability."⁵⁴ According to a 2004 Marine Resources Assessment Group (MRAG) Report, this aspect of VMS had not yet been subject to a legal challenge,⁵⁵ it is, however, an area ripe for contention. Approaching such issues internally in a proactive manner will likely reap benefits in the long term.

VMS data security is often touted as an issue of paramount importance to the commercial fishing industry; however, data integrity is an equally compelling interest for fisheries management and enforcement personnel.

The positions of fishing vessels can be valuable and sensitive commercial information. Thus, monitoring agencies must make efforts to ensure the physical and operational security of shipboard equipment, communications, and fishery monitoring centres. Security is essential to the fishery managers

⁵³ For example, the MRAG Report noted that "in Scotland sightings of fishing vessels that are subject to VMS from a variety of sources including fisheries patrol vessels, the coastguard, the Royal Navy and the Royal Air Force are systematically gathered and cross checked against VMS reports." MRAG Report at 52. Similarly, "[i]n Spain, Navy and *Guardia Civile* officers have standing instructions to press the transmit button on the transponder of every fishing vessel they inspect, again so that the accuracy of the VMS position data can be compared with that of the inspection report." *Ibid.*

⁵⁴ MRAG Report at 38.

⁵⁵ *Ibid.*

to ensure that the VMS information is authentic and non-repudiated, of high integrity, and private.⁵⁶

On the international front, with an ever-increasing focus on combating IUU fishing, the potential repercussions of charges of illegal fishing have also increased.⁵⁷ Challenges to the security and integrity of VMS data seem inevitable, yet they should not be fatal to a case or a program. If necessary in the face of a challenge, third party verification or audits can be used to bolster in-house assurances.

The reality is that despite the enforcement community's growing comfort with VMS, it remains relatively untested in the courtroom.⁵⁸ By 2004, worldwide "VMS data [had] only been considered by the courts on less than three dozen occasions to date."⁵⁹ While that number has undoubtedly grown in the past five years, we are still in the early years. However, "[p]robably the most significant point that emerges is that, to date, VMS data has been accepted as evidence in all the cases ... whether civil or criminal."⁶⁰ Thus far, VMS continues to prove to be an asset to fisheries enforcement efforts and has enhanced, not hampered, prosecution efforts.

Graphically Depicting VMS data

VMS data are only as useful as the ability to effectively convey the information for what may be a non-technically oriented audience. And this is not just to the court. Prosecutors are the first audience for the evidence and must be convinced of the merits of the case before charges will be filed. At NOAA, this has led to an ongoing evolution in how VMS evidence is presented to the prosecutors and thus to the court. What began as simple VMS tracks crossing over a line signifying a closed area boundary has now morphed into ever more sophisticated renderings of VMS data. VMS information can be displayed in many different ways in order to highlight different facts. Depicted in Figures 2 through 4, below, are three examples of VMS plots that convey markedly different information.

⁵⁶ Food and Agriculture Organisation of the United Nations, Fishing Vessel Monitoring Systems, *Fishery Monitoring Centre fact sheet*, <http://www.fao.org/fishery/vms/6.3/en>

⁵⁷ For example, the proliferation of IUU lists in regional fishery management organisations, domestic IUU lists certifying nations who have failed to curb IUU fishing by vessels flying their flag, and port state measures to address IUU fishing.

⁵⁸ MRAG Report at 46.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

Figure 2: Plot from the *Lobsters, Inc.* case

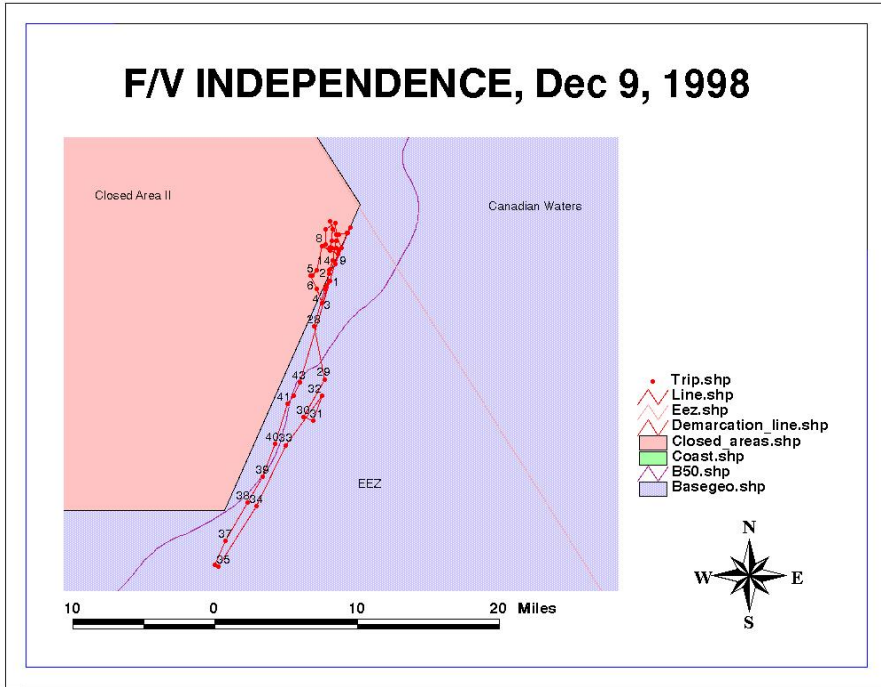


Figure 2 is from the *Lobsters, Inc.* case discussed earlier. This plot provides several key pieces of information that should be included on all plots going to the court – the fishing vessel name, the date, a scale, a compass rose, and a legend. What may be obvious to the person creating the plot is often not obvious to an uninformed reviewer. The plot also clearly differentiates the closed area from the EEZ and annotates them as such. For this plot, each number represents a ping on the VMS, meaning VMS data position information was generated for each of those locations.

Importantly, the Figure 2 plot shows two things unmistakably. First, it shows the volume of pings inside the closed area. Second, and more strikingly, it shows that the vessel fished right alongside the closed area boundary for an extended period of time indicating knowledge of the regulatory boundaries. This demonstrates not only knowledge of the boundary, but it tells the story of exactly what happened in terms of the vessel's operational activity. The vessel fished the boundary line and then darted in and out of the closed area.

Figure 3: Plot from the *Lobsters, Inc.* case

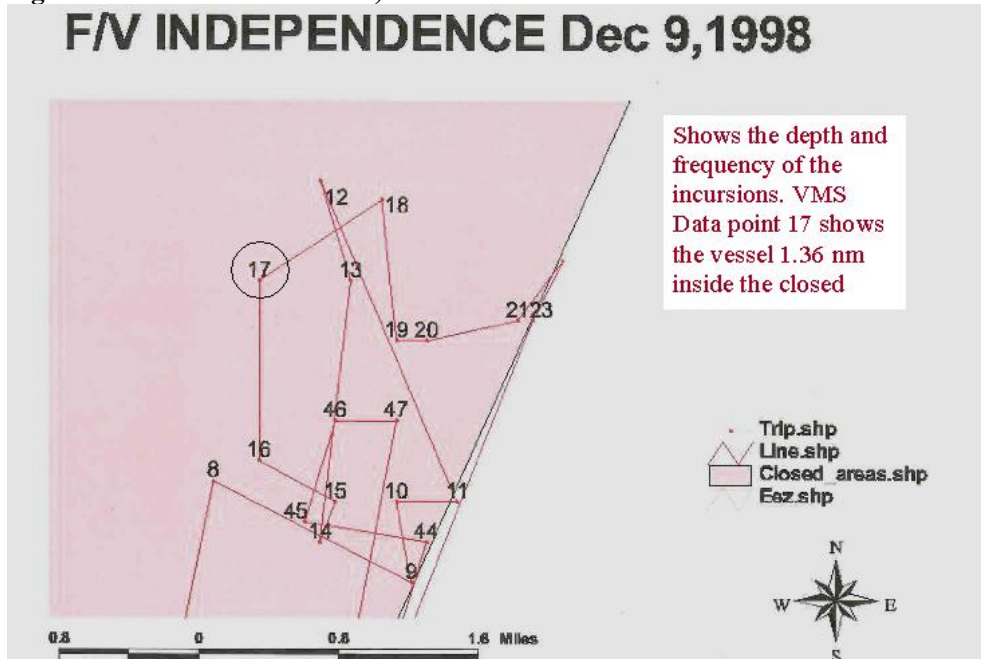


Figure 3 is a blown up section of the upper portion of Figure 2 and highlights the VMS signals or pings from inside the closed area. Once again, in terms of presentation, the plot retains the vessel name, date scale, compass rose and legend that are vital to orienting the reviewer. In addition, it adds a text box to focus the reviewer on the key information. This plot depicts not only the extent of the incursion (e.g. point 17), but also presents the substantial number of incursions inside the closed area. Labeling each ping in sequence allows the viewer to see that it was not just one incursion, but a series of repeated incursions into the closed area. Here, the exact location of the plots in the ocean is less important than the volume of plots and evidence of multiple incursions.

Figure 4: Hypothetical Plot from a Fishing Vessel

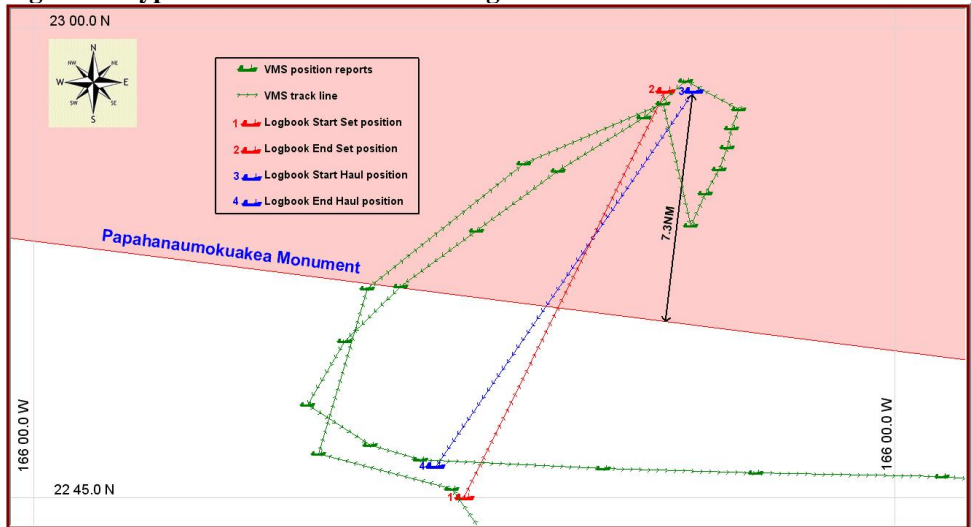


Figure 4 is a more recent plot made to demonstrate how the addition of logbook data to the standard VMS plots can enhance the reviewer’s understanding of the case. By plotting logbook (or catch and effort) data alongside VMS data the results can be extremely effective in a couple of ways. For instance, if there is close correlation between the two, then the logbooks, which are typically signed on a daily basis by the vessel master, become the vessel’s own corroboration of the VMS data. And if the logbooks *do not* correlate with the VMS data, then the VMS data may be used to demonstrate that portions of the logbooks were falsified.

When using logbook data, however, it is important to highlight certain information for the court. As is true with the VMS track lines or plots, the only positions where there is certainty as to the vessels location are those actual points (e.g. Figure 4). The lines connecting the VMS-generated vessel positions are just that – lines connecting two points. They do not necessarily represent the actual path of the vessel. However, VMS tracks with short intervals of time between pings create approximate paths of the vessel that are closer to the true course of the vessel. Sometimes, rather than using a straight line to connect the logbook set and haulback positions, the chart will include a shaded area that covers the entire *possible* area of the vessel’s course, based on the known variables. This could, for instance, effectively show the court that no matter the path the vessel took between point A and point B, it remained inside a closed area the entire time.

It can also be noticeable that the end points of the set and haulback are not exactly on top of VMS points. Logbook positions may not occur at the exact same time as a VMS poll and therefore will not always correspond exactly to VMS tracks. The longer the polling period of the VMS, for instance four hours versus thirty minutes, the more likely it is that the logbook position may seem like an outlier. This apparent anomaly should be easily explained to the court by comparing the logbook position time with the VMS polling time.

There are a wide variety of ways to effectively display VMS information. The secret is to always remain mindful of your viewer and ensure that the exhibit, to the greatest extent possible, can be understood and recalled in the absence of a verbal explanation. Often, there is a long lag time between the hearing and the time when the judge actually sits down to review the evidence and write a decision. The goal is that your VMS exhibits can withstand that test of time and will still serve to educate and inform the court.

Using Demonstrative Exhibits

One of the challenges of introducing “new” technology to a court or a jury is taking a concept that may be technically complex and winnowing it down to the critical elements of the process. When presenting VMS data to a court that has little or no experience with VMS, one should plan to present the evidence orally, in writing and graphically through demonstrative exhibits. MRAG recommends that “in cases where a court is being asked to consider the use of VMS data for the first time, more imaginative approaches be considered.”⁶¹ By varying the methods of presentation of the information, you increase the likelihood of conveying the information in a manner that will be helpful to the listener and subtly reinforce your message through repetition without seeming duplicative.

The use of graphically appealing and demonstrative exhibits to present VMS information to the court can be extremely helpful for several reasons. Some judges or juries may need a visual display to fully grasp the functioning of VMS generally. When presenting information on actual VMS tracks, visual aids become increasingly necessary. Displaying a vessel’s VMS tracks on a chart can demonstrate many key facts to the court. It can show the extent of an incursion into a closed area or an EEZ. It can show the close correlation between the VMS track and the positions documented in a vessel’s logbook. It can corroborate the eyewitness evidence from a marine or aviation patrol.

⁶¹ *Ibid* at 51. The MRAG Report cites the *Lobsters, Inc.* case as an example, highlighting the prosecutors’ use of a powerpoint projector to display the various vessel track records, as well as to demonstrate how the VMS operated.

As shown in Figure 2 above, sometimes, showing a VMS track *outside* a closed area can be persuasive in proving your case. A vessel, accused of unlawfully entering a closed area, may claim not to have known of the closed area boundary. By reviewing and presenting VMS tracks, by that same vessel, that demonstrates movement in a repeated or continuing parallel fashion along the outside of a closed area, one can compellingly demonstrate knowledge of the boundary. Often historical VMS data from the vessel's previous activity (i.e. previous fishing trips) can be particularly useful for conveying this point.

Visual aids can also combat the dry nature of technical testimony. Technical testimony, although not always dull, lends itself to detailed, complex explanations that may not always be easily understood. There is a potential risk that an expert technical witness will begin lecturing in an academic manner rather than testifying. Using demonstrative exhibits can help defuse that risk by focusing your witness on explaining an exhibit. In addition, such exhibits will often require that the witness get out of the witness box and onto their feet. This will serve to de-formalise the proceedings somewhat and allow for a more comfortable, less formulaic exchange of technical information.⁶²

Well-presented visual exhibits have the added benefit of sometimes lingering in the courtroom after the completion of the witness's testimony, remaining on an easel as the trial moves on or even being co-opted by the Judge or opposing party. It is not unusual for a chart or large exhibit to remain in place after its use in the trial, passively displaying its information throughout the trial. Out of convenience, such exhibits are frequently used by the Judge or opposing party during the trial. Use of your exhibits by the court or an opposing party can give additional reinforcement of their authenticity and reliability – in essence, they become reference material for the case as a whole rather than the presentation of one side of the argument.

Courts and judges differ greatly in their rules, procedures and styles. The use of demonstrative evidence and some of the techniques described above may not always be appropriate or possible. Effective presentation of technical information can often be the most challenging piece of a trial. It is, in many ways, a balancing act between competing needs and goals. There is the basic goal to provide the court with clear, comprehensive and cogent information that supports your case.

⁶² One caveat to the use of demonstrative exhibits is that the enthusiasm of creating a visually pleasing exhibit should never overwhelm critical attention to detail. You should ensure that you have confidence in the accuracy of any material you put before the court, even if not being offered for that purpose or only being used for demonstrative purposes. If using a map as an underlay to VMS data, be certain that the map accurately represents the area in question. Demonstrative exhibits have a way of ending up as material exhibits before the court, even if not originally intended for that purpose. Treat them with the same level of care that you would any other exhibit.

However, it is imperative that you do not allow the case to become bogged down in technical minutiae salient to neither the case nor the reliability of the evidence.

The expression “explain it to me as if I am six year old”⁶³ is often used to convey to technical experts the appropriate level for their testimony. However, simplifying does not have to lead inexorably to over-simplification. Both the prosecutor and the technical witness must demonstrate command of and comfort with the technical information. One technique for conveying this, and educating the court, is essentially to swap roles. The prosecutor uses the technical terminology, conveying his or her knowledge and understanding of the evidence, in questioning the technical witness. The technical witness translates those technical questions into readily understandable answers. This establishes the technical witness as one who recognises the complexity of the technical issue and can explain it in everyday terms. This allows the witness to become an ally of the Court.

Every trial is different and no one formula will work every time. VMS data will continue to play an increasing role in fisheries enforcement, and thus, fisheries prosecutions. The techniques and strategies discussed above are the lessons we have learned from each other thus far. As we all continue to establish standard practices, both in and out of the courtroom, for the handling and use of VMS data, VMS will quickly become assimilated into our trial routines. With each case, we have the opportunity to add to the growing acceptance of VMS data as evidence in fisheries enforcement proceedings.

Conclusion

VMS is often either heralded as the magic elixir of fisheries enforcement or condemned as completely unreliable. VMS is neither fool-proof nor fool-hardy. VMS has effectively increased our ability to combat IUU fishing worldwide. VMS alone, however, is not enough for such a large task. As stated in the FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated, IUU fishing “is of serious and increasing concern. ... IUU fishing can lead to the collapse of a fishery or seriously impair food security and environmental protection.”⁶⁴ Such a result is unacceptable.

VMS cannot, and should not, “replace or eliminate conventional MCS measures such as aerial surveillance, boarding at sea via patrol boat, landing inspections and

⁶³ PHILADELPHIA (TriStar Pictures, 1993), Attorney Joe Miller (Denzel Washington) to client Andrew Beckett (Tom Hanks).

⁶⁴ International Plan of Action to prevent, deter and eliminate illegal, unreported and unregulated fishing. Rome, FAO, 2001, 24p.

documentary investigations.”⁶⁵ The challenges of fisheries enforcement in the 21st Century are too great to rely passively on VMS to protect our oceans. As discussed above, VMS allows us to see that which was heretofore hidden, but it is what we *do* with this increased information that makes all the difference.

I am wary, however, of VMS becoming the facile solution to increasing enforcement capacity. Those of us in fisheries enforcement and management must be vigilant in ensuring that VMS complements, but does not replace, other critical elements of an effective enforcement strategy. VMS is but one sturdy, good tool, in a toolbox that must teem with enforcement tools.

⁶⁵ *FAO Technical Guidelines for Responsible Fisheries – Fishing Operations, Vessel Monitoring Systems*, No.1, Suppl. 1, Food and Agriculture Organisation of the United Nations, Rome, 1998, 58 p, at 5.

Bibliography

15 C.F.R. Part 904, 2008.

Advanced Communications Technology: Eighth District BOATRACS Test and Evaluation Final Report, United States Coast Guard, Office of Research and Development, July 1998.

Cacaud, P. *Legal Issues Relating to Vessel Monitoring Systems*, FAO / Norway Government Cooperative Programme, GCP/INT/648/NOR, Field Report C-1, Supp. 2, FAO, Rome, 1999.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 1993.

Dept. of Labor v. Greenwich Collieries, 512 U.S. 267, 1994.

Evidential Value of VMS Position Reports, (FISH/2002/11), Final Report, Marine Resources Assessment Group Ltd, April 1 2004, (MRAG Report).

FAO, *FAO Technical Guidelines for Responsible Fisheries – Fishing Operations, Vessel Monitoring Systems*, No.1, Suppl. 1, Food and Agriculture Organisation of the United Nations, Rome, 1998.

FAO, *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*, FAO, Rome, 2001, 24p.

Food and Agriculture Organisation of the United Nations, *Fishing Vessel Monitoring Systems, Fishery Monitoring Centre fact sheet*, <http://www.fao.org/fishery/vms/6,3/en>

Food and Agriculture Organisation of the United Nations, *Fishing Vessel Monitoring Systems, Introduction to VMS fact sheet*, <http://www.fao.org/fishery/vms/2/en>

Food and Agriculture Organisation of the United Nations, *Fishing Vessel Monitoring Systems, VMS Components fact sheet*, <http://www.fao.org/fishery/vms/6/en>

Harman, R.F., and S.Y. Yamashita. *Hawaii Fishing Vessel Monitoring System: Report of the Pilot Project*. National Marine Fisheries Service, Office of Enforcement, Southwest Region, Honolulu, Hawaii, 1997.

Herman & MacClean v. Huddleston, 459 U.S. 375, 390, 1983.

In the Matter of Lobsters, Inc. and Lawrence Yacubian, 2001 WL 1632538, N.O.A.A.

In the Matter of Lobsters Inc. and Lawrence Yacubian, 2001 WL 1632538, N.O.A.A., Agency's Initial Brief.

In the Matter of Lobsters Inc, and Lawrence Yacubian, 2003 WL 22000640, N.O.A.A.

In the Matter of Roque, 1999 NOAA LEXIS 8 at 69, *aff'd Roque v. Evans*, 2003 U.S. Dist. LEXIS 541 (D. Mass).

Kumho Tire v. Carmichael, 526 U.S. 137, 1999.

Lobsters, Inc. et al. v. Evans, 346 F.Supp.2d 340, 343 (D. Mass), 2004.

PHILADELPHIA (TriStar Pictures, 1993), Attorney Joe Miller (Denzel Washington) to client Andrew Beckett (Tom Hanks).

Steadman v. S.E.C., 450 U.S. 91, 100-03, 1981.

6. Fisheries Dispute Settlement under the Law of the Sea Convention: Current Practice in the Western and Central Pacific Region

Martin Tsamenyi, Ben Milligan and Kwame Mfodwo

Introduction

The international regulation of fisheries is one of the central features of the *United Nations Convention on the Law of the Sea of 10 December 1982* (the LOSC).¹ Provisions regarding fisheries, which are largely incorporated into Part IV of the LOSC under the exclusive economic zone (EEZ) provisions, permit coastal States to extend their fisheries jurisdiction to 200 nautical miles from their baselines. This development has had far-reaching effects on the relations between coastal States and distant water fishing nations whose nationals had previously harvested the fisheries resources in the extended zones of jurisdiction under the freedom of the high seas.

Part XV of the LOSC establishes a comprehensive framework for the settlement of disputes arising from the interpretation and application of the Convention, including the settlement of fisheries-related disputes. This chapter provides an overview and analysis of the dispute settlement mechanism established by the LOSC and examines how the Part XV framework has been implemented by member countries of the Pacific Islands Forum Fisheries Agency (FFA).²

Fisheries Dispute Settlement Under the LOSC

The Development Of LOSC Part XV

As discussed in detail below, the LOSC contains a number of specific provisions regarding the settlement of fisheries-related disputes and a significant number of disputes arising from the Convention have contained fisheries-related elements. The dispute settlement mechanism for fisheries is only one aspect of Part XV of the LOSC, the part of the Convention devoted to dispute settlement in general.

The context in which the entire dispute settlement mechanism was drafted is particularly important for understanding its key characteristics of flexibility, comprehensiveness, and complexity. During the Third United Nations

¹ *United Nations Convention on the Law of the Sea of 10 December 1982*, opened for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994).

² The members are: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand (including Tokelau), Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

Conference on the Law of the Sea (UNCLOS III),³ it became obvious to negotiators from most States that a comprehensive and to some extent, compulsory, system was necessary to help resolve the variety of ambiguities and problems of interpretation fated to arise when the LOSC came into force.⁴ However, States were not prepared to establish a mechanism which could easily compel their submission to its jurisdiction, even as they were also not ready to submit all categories of disputes to the comprehensive system they desired.⁵

The resolution of these conflicting perspectives, after much negotiation and creative⁶ legal work, was Part XV of the LOSC, which for the first time, incorporated within the main text of a major multilateral treaty, comprehensive, and in some cases, compulsory judicial settlement mechanisms, rather than relegating compulsory dispute settlement to an optional protocol.

There are many reasons why States were prepared to accept a general obligation on dispute settlement equally binding on all State ratifying the LOSC.⁷ The reasons included: the flexibility of the system based on the proposition that the will of the parties must prevail and that the parties may by agreement select any dispute settlement system they wish; the ingenuity of the system in incorporating the non-compulsory procedures of general international law; the presence within the system of the variety of dispute settlement approaches advocated by different States (functionalist arbitration; ad-hoc general arbitration; judicial proceedings); and the fact that the LOSC restricted itself to dispute settlement relating only to the written rules of the Convention, leaving out the unwritten rules of general international law about which there is much uncertainty. Finally, the major maritime and distant water fishing States accepted the dispute settlement system as the only means of keeping in check the broad powers granted to coastal States.⁸

³ This conference was convened in New York in 1973 and concluded in 1982 with the adoption of the LOSC. For an overview of the LOSC negotiation processes see United Nations Division for Ocean Affairs and the Law of the Sea (DOALOS), 'United Nations Convention on the Law of the Sea (A historical perspective)', available at <http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm>

⁴ See, generally, Nordquist, M., Rosenne, S. and Sohn, L. (eds) *UN Convention on the Law of the Sea 1982: A Commentary Vol V*, 1989; Sohn, L. 'Settlement of Disputes Arising out of the Law of the Sea Convention' in *San Diego Law Review*, Vol. 12, 1975, p. 495; Adede, A. 'Settlement of Disputes Arising under the Law of the Sea' in *The American Journal of International Law*, Vol. 69, 1975, p. 798; Adede, A. *The System for Settlement of Disputes under the UN Convention of the Law of the Sea*, 1987; Klein, N. *Dispute Settlement in the UN Convention on the Law of the Sea*, 2005.

⁵ Jaenicke, G. 'Dispute Settlement under the Law of the Sea Convention' in *ZaöRV* 813, Vol. 43, 1983, p. 817; Adede, A. 'Prolegomena to the Dispute Settlement Part of the Law of the Sea Convention' in *New York University Journal of International Law and Politics* Vol. 10, 1977, p. 253.

⁶ See Adede, 1987, above n 4, p. 53-54, which discusses in particular the flexible system of access to the procedures devised by Professor Riphagen, known thereafter as the Montreux Formula. See also Nordquist, Rosenne and Sohn, above n 4, p. 8-9; Rosenne, S. 'UNCLOS III – The Montreux (Riphagen) Compromise' in Bos, A. and Siblesz, H. (eds) *Realism in Law Making: Essays in International Law in Honour of Wilhelm Riphagen*, 1986, p. 169.

⁷ See Jaenicke, above n 5, p. 815-816; Nordquist, Rosenne and Sohn, above n 4, pp. 3-19.

⁸ See Jaenicke, above n 5, p. 815-816; Adede (1987), above n 4, p. 243.

*The Dispute Settlement Mechanism in Part XV of the LOSC*⁹

There are three ways in which fisheries disputes are addressed in Part XV and its related annexes. First, some disputes, including those concerning high seas fisheries are subject to compulsory settlement procedures. Second, fisheries disputes within the EEZ are exempted from any requirement of compulsory settlement where what is in dispute is the assertion of alleged or undisputed sovereign rights by a coastal State. Third, in three specified instances where sovereign rights are flagrantly exercised to the detriment of other States, conciliation procedures are compulsory at a disputant State's request. The outcome is; however; not binding on the disputants, a clear recognition of the primacy of the sovereign rights granted the coastal State under the LOSC.

The ways in which fisheries disputes are addressed in Part XV result from the interaction of compulsory and non-compulsory dispute settlement procedures in addition to general obligations applicable to dispute settlement. These elements of Part XV of the LOSC may be described as follows.

General Obligations and Non-compulsory Dispute Settlement Procedures

Part XV Section 1 of the LOSC sets out a number of obligations regarding conciliation, exchange of views and the seeking of settlement through treaty mechanisms outside the LOSC framework.

Article 279 of the LOSC asserts that the fundamental and preliminary obligation of all State parties is to settle disputes, whether in the fisheries sector or otherwise, by the peaceful means indicated in Article 33(1) of the Charter of the United Nations (UN Charter), and in accordance with Article 2(3) of the Charter. Article 2(3) of the UN Charter requires members States to 'settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.' The peaceful means of dispute settlement indicated in Article 33(1) of the UN Charter include: negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, and resort to regional agencies or arrangements.¹⁰

⁹ See generally, Churchill, R. and Lowe, V. *The Law of the Sea*, 3rd ed, 1999, pp. 447-462; Nordquist, Rosenne and Sohn, above n 4; Klein, above n 4.

¹⁰ Article 33(1) of the UN Charter provides in full: 'The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.' The reference to this provision in LOSC Article 279 is really only to the 'means referred to in Article 33, paragraph 1 of the Charter, not to paragraph 1, as a whole. This drafting choice was made in order to avoid the restriction in that provision that only disputes 'the continuance of which is likely to endanger the maintenance of international peace and security' are subject to the settlement under Chapter VI of the UN Charter. Under Article 279 all disputes, not only those endangering international peace and security, are subject to settlement: See Nordquist, Rosenne and Sohn, above n 4, p. 18.

Article 284 of the LOSC permits State parties involved in disputes concerning the Convention to invite the other disputant(s) to submit to conciliation. The presiding body is a five person Conciliation Commission, with the limited though useful brief of hearing the parties, examining their claims and objections, and making proposals with a view to reach an amicable settlement.¹¹ Each party is entitled to choose two conciliators, including one of its nationals.¹² The fifth conciliator is chosen by the other four or by the UN Secretary General at the request of a party to the dispute if an appointment is not made within a specified period.¹³ Conciliators are chosen from a list to which each State party to the LOSC is entitled to nominate four people. The Conciliation Commission is required to report to the UN Secretary General within twelve months. Where successful the report is to include any agreements reached, and where unsuccessful, the report is to state its conclusions on all questions of fact and law relevant to the matter in dispute, as well as all recommendations that the Commission deems appropriate for an amicable settlement. The report is not binding, though its hortatory value would presumably be quite high as the UN Secretary General may distribute it widely. The entire procedure can be aborted if one party rejects the Commission's recommendations.

State parties are free to settle their disputes by peaceful means set out in general, regional or bilateral agreements in force between them outside the LOSC's system.¹⁴ However, in cases where no settlement has been reached under these alternative procedures, and where reference to the LOSC procedure is not precluded, State parties may have recourse to the system set out in the LOSC.¹⁵

The submission to the dispute-settlement procedures of the LOSC is predicated on the exhaustion of local remedies.¹⁶ This requirement has been described as ambiguous,¹⁷ since it could mean that in disputes which arise as State-to-State disputes inter-se local remedies should first be sought in one State's fora. A more widely accepted interpretation is that the exhaustion of local remedies requirement applies only in situations where nationals of one State are engaged in a dispute against the authorities of another State, the core sense in which the concept is used in international law.¹⁸

Mindful of the possible confusion and delay in proceeding through the multiplicity of mechanisms, expeditious inter-party communications are

¹¹ LOSC Annex V Article 6.

¹² LOSC Annex V Article 3.

¹³ LOSC Annex V Article 3.

¹⁴ LOSC Article 282.

¹⁵ LOSC Article 286.

¹⁶ LOSC Article 295.

¹⁷ See Birnie, P. 'Dispute Settlement Procedures in the 1982 UNCLOS' in Butler, W.E. (ed) *The Law of the Sea and International Shipping: Anglo-Soviet Post-UNCLOS Perspectives*, 1985, p. 46.

¹⁸ See Adede, 1987, above n 4, p. 162; Shaw, M. *International Law*, 5th ed, 2003, p. 730-732.

mandated by Article 283.¹⁹ To accommodate a strongly expressed concern held by coastal States,²⁰ Article 294 attempts to prevent costly and vexatious proceedings by empowering settlement bodies to determine the existence or not of a *prima facie* case.²¹

Compulsory Dispute Settlement Procedures

Part XV Section 2 of the LOSC sets out 'compulsory procedures entailing binding decisions' which become operative in accordance with LOSC Articles 286 and 287 where no settlement has been reached by recourse to the non-compulsory procedures specified in Part XV Section 1. Article 287 refers to four alternative fora for compulsory dispute settlement procedures, namely (i) the International Tribunal for the Law of the Sea (ITLOS); (ii) the International Court of Justice (ICJ); (iii) an arbitral tribunal constituted in accordance with Annex VII of the LOSC; and (iv) a special arbitral tribunal constituted in accordance with Annex VIII of the LOSC. States are entitled to choose, by means of a written declaration, one or more of these dispute settlement fora at any time, on or after becoming party to the Convention. State parties that have not made a declaration indicating their choice of fora are deemed to have accepted arbitration in accordance with Annex VII of the LOSC. If the parties to a dispute have chosen the same forum for dispute settlement under Article 287, the dispute may be submitted only to that forum unless the parties otherwise agree. If the parties to a dispute have not chosen the same forum for dispute settlement under Article 287, the dispute may be submitted only to 'Annex VII' arbitration unless the parties otherwise agree.

If a dispute has been duly submitted to a court or tribunal which considers that *prima facie* it has jurisdiction under Part XV or Part XI, Section 5, the court or tribunal may prescribe any provisional measures which it considers appropriate under the circumstances to preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment, pending the final decision.²² ITLOS is empowered to prescribe, modify or revoke provisional

¹⁹ See Adede, 1977, above n 5, p. 262.

²⁰ For example, during UNCLOS III Kenya stated: 'All matters relating to that zone were exclusively within the competence of the coastal State, and to accept the possibility of compulsory third-party settlement would mean that the coastal State might be subjected to constant harassment by having to appear before international tribunals at considerable loss of time and money. Similarly, where the coastal State had been given clearly defined jurisdiction by the Convention, particularly with respect to the preservation of the marine environment, its power would be negated if it could be subjected, each time it exercised such power, to compulsory dispute settlement systems on matters which could be dealt with through local courts.' Statement by Mr Njenga (Kenya) III UNCLOS *Official Records* 3, UN Doc. A (Conf. 621/WP.9/Add 1, 1976).

²¹ LOSC Article 294(1) provides: 'A court or tribunal provided for in Article 287 to which an application is made in respect of a dispute referred to in Article 297 shall determine at the request of a party, or may determine proprio motu, whether the claim constitutes an abuse of legal process or whether prima facie it is well founded. If the court or tribunal determines that the claim constitutes an abuse of legal process or is prima facie unfounded, it shall take no further action in the case.'

²² LOSC Article 290.

measures pending the constitution of the court or tribunal to which the dispute has been submitted.²³

Article 292 of the LOSC establishes a specific compulsory procedure for disputes concerning LOSC Article 73, which requires the prompt release of vessels and crews detained in the exercise of a coastal State's right to enforce its laws and regulations regarding the conservation and management of living resources in its EEZ. Where the authorities of a coastal State have detained a vessel flying the flag of another State, disputes regarding compliance with LOSC Article 73 may be heard by ITLOS or a tribunal accepted by the detaining State under Article 287.²⁴ The tribunal hearing the dispute is empowered to determine a reasonable bond or security and order the release of the detained vessel or its crew.²⁵

*Fora Available for Compulsory Dispute Settlement*²⁶

As noted above, the variety of dispute settlement approaches available in Part XV of the LOSC was a key reason why States were prepared to accept the inclusion of a binding system of dispute settlement in the Convention. The four fora for compulsory dispute settlement set out in LOSC Article 287 and their varied characteristics are described briefly below.

The International Court of Justice (ICJ) was established after the Second World War as the 'principal judicial organ' of the United Nations.²⁷ The ICJ is comprised of 15 judges, no two of whom may be nationals of the same State,²⁸ who are:²⁹

elected regardless of their nationality from among persons of high moral character, who possess the qualifications required in their respective countries for appointment to the highest judicial offices, or are jurisconsults of recognized competence in international law.

Judges are elected from a list of qualified persons for nine year terms according to a procedure involving separate votes in the UN General Assembly and Security Council.³⁰ Judges are also subject to several requirements designed to ensure their impartiality³¹ and enjoy diplomatic privileges and immunities when engaged in the business of the court.³² The ICJ is empowered to manage

²³ LOSC Article 290(5).

²⁴ LOSC Article 292(1).

²⁵ LOSC Article 292(4).

²⁶ See, generally, Shaw above n 18, pp. 959-1012 (regarding the ICJ and ITLOS), Churchill and Lowe, above n 9, pp. 451-458.

²⁷ See UN Charter Article 92.

²⁸ ICJ Statute Article 3(1).

²⁹ ICJ Statute Article (2).

³⁰ See Shaw, above n 18, pp. 961-962.

³¹ ICJ Statute Articles 16-18.

³² ICJ Statute Article 19.

its own procedure and operations and has adopted detailed rules of court in addition to several practice directions.³³ Each party to a dispute before the ICJ is entitled to appoint an ad hoc judge for the duration of the case, unless there is already a judge of its nationality on the bench.³⁴ State parties to a dispute may also agree to have their dispute heard by a Chamber of the Court, although such arrangements are rare.³⁵ The ICJ is required to form annually a Chamber of Summary Procedure, consisting of five judges allocated by the Court, 'with a view to the speedy dispatch of business of the Court.'³⁶ Chambers may also be formed to handle particular subject matter (for example environmental matters) or specific disputes.³⁷ In the latter case, parties to a dispute may, in practice, determine the composition of the Chamber by consensus.³⁸

The ICJ is considered to be the most prestigious judicial body with competence to adjudicate disputes in accordance with international law.³⁹ The court has delivered many judgements in relation to disputes concerning the law of the sea⁴⁰ and has been chosen as a dispute settlement forum by 24 of the 46 States that have, as of February 2009, submitted declarations under LOSC Article 287.⁴¹ Commentators have identified the time period required by the court to deliver judgements (a minimum of several years) and the formality of the court's procedures as potential disadvantages of using the ICJ as a dispute settlement mechanism.⁴²

ITLOS was established in accordance with Annex VI of the LOSC. Unlike the ICJ, which is only capable of adjudicating disputes between States,⁴³ ITLOS is also open to non-State entities (for example international organisations).⁴⁴ The tribunal is comprised of 21 independent judges, who are 'elected from among persons enjoying the highest reputation for fairness and integrity and of recognised competence in the field of the law of the sea.'⁴⁵ The Statute of the tribunal incorporates several requirements designed to ensure that the tribunal, as a whole, is representative of the principal legal systems of the world and reflects an equitable geographical distribution of judges.⁴⁶ Judges are

³³ See ICJ Statute Article 30 and the rules of court and practice directions available on the ICJ website at <<http://www.icj-cij.org/documents/index.php?p1=4>>. See also Shaw, above n 18, pp. 965-966.

³⁴ ICJ Statute Article 31.

³⁵ See Shaw, above n 18, pp. 964-966 and the summary of Chambers of the Court published on the ICJ website at <<http://www.icj-cij.org/court/index.php?p1=1&p2=4>>

³⁶ See ICJ Statute Article 29.

³⁷ See ICJ Statute Article 26(1) and (2). See also above n 35.

³⁸ See the comments of Judge Oda at *ICJ Reports*, 1987, 10, 13 extracted in Shaw, above n 18, p. 965.

³⁹ Shaw, above n 18, pp. 959-960.

⁴⁰ See generally, Shaw, above n 18, pp. 490-571 and the list of cases referred to in Churchill and Lowe, above n 9, xix-xxii.

⁴¹ See DOALOS, 'Settlement of Disputes Mechanism: Recapitulative Tables' available at: <http://www.un.org/Depts/los/settlement_of_disputes/choice_procedure.htm>

⁴² See Churchill and Lowe, above n 9, p. 452.

⁴³ ICJ Statute Article 34.

⁴⁴ See LOSC Annex VI Article 20.

⁴⁵ LOSC Annex VI Article 2(1).

⁴⁶ See LOSC Annex VI Articles 2 and 3.

elected by State parties to the LOSC for nine year terms.⁴⁷ The Statute of the tribunal provides for the appointment of ad hoc judges in a similar manner to the ICJ procedure described above.⁴⁸ Parties to a dispute may agree to have their dispute heard by a Special Chamber of the tribunal consisting of three or more judges, selected with approval of the parties.⁴⁹ The tribunal is also required to form annually a chamber composed of five judges to hear and determine disputes by summary procedure.⁵⁰ In accordance with the Statute of the tribunal and Part XI, Section 5 of the LOSC, a Seabed Disputes Chamber of the tribunal has been formed with jurisdiction in relation to disputes regarding activities in the international seabed area.⁵¹

So far, ITLOS has emerged as the preferred judicial mechanism for the settlement of fisheries-related disputes under the LOSC, with 12 out of the 15 cases submitted, to date, to ITLOS having dealt with such disputes.⁵² Ten of these cases have been submitted to the tribunal under the Article 292 procedure described above (regarding the prompt release of vessels and crews detained by a coastal State). A key advantage of using ITLOS as a dispute resolution body is the tribunal's ability to process disputes much faster than the ICJ.

An arbitral tribunal constituted in accordance with Annex VII of the LOSC may be established in relation to disputes concerning the interpretation and application of the Convention between State parties to the LOSC and/or other entities (for example international organisations).⁵³ Parties to a dispute may determine the composition of an Annex VII arbitral tribunal by agreement. Each party is entitled to appoint one of the five members of the tribunal, with the remaining three members being selected jointly.⁵⁴ Members must be appointed from a list of arbitrators to which each State party to the LOSC may nominate four people, 'each of whom shall be a person experienced in maritime affairs and enjoying the highest reputation for fairness, competence and integrity.'⁵⁵ Persons nominated to the list of arbitrators are not required to have legal expertise, and accordingly may be technical experts in fisheries management.

⁴⁷ See LOSC Annex VI Articles 4 and 5. Elections are conducted on a staggered basis every three years. In order to make this staggered process possible, the terms of 14 judges elected at the first election were shortened by lot – seven terms to three years, and the other seven terms to six years.

⁴⁸ See LOSC Annex VI Article 17.

⁴⁹ See LOSC Annex VI Article 15.

⁵⁰ LOSC Annex VI Article 15(3).

⁵¹ See LOSC Annex VI Article 14. See also Shaw, above n 18, p. 1007.

⁵² A list of cases heard by ITLOS is available at the Tribunals website: <http://www.itlos.org/cgi-bin/cases/list_of_cases.pl?language=en>. See also Klein, above n 4, pp. 85-118.

⁵³ See LOSC Annex VII Article 13.

⁵⁴ See LOSC Annex VII Article 3. In the event that parties to a dispute fail to reach agreement regarding the appointment of the three members chosen jointly, these members are appointed by the President of the Law of the Sea Tribunal: See LOSC Annex VII, Article 3(d).

⁵⁵ See LOSC Annex VII Article 2.

A Special Arbitral Tribunal constituted in accordance with Annex VIII of the LOSC may be established as a forum for four categories of disputes, namely: '(1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, or (4) navigation, including pollution from vessels and by dumping.'⁵⁶ The fisheries panel is comprised of technically competent experts drawn primarily from a list of world-wide State-nominated experts (who may be technical, as opposed to legal experts). The list is drawn up and maintained through the Food and Agricultural Organisation of the United Nations (FAO).⁵⁷ Parties to a dispute may agree to request the panel 'to carry out an inquiry and establish the facts giving rise to the dispute.'⁵⁸ Unless the parties otherwise agree, the findings of fact made during this procedure are considered conclusive between the parties.⁵⁹ Parties to a dispute may also agree to request the panel to formulate recommendations, which 'shall only constitute the basis for a review by the parties of the questions giving rise to the dispute' and do not have the binding effect of a legal decision.⁶⁰

Arbitral tribunals, constituted under either Annex VII or Annex VIII of the LOSC, have several advantages over judicial settlement bodies such as ITLOS or the ICJ. As Shaw notes:⁶¹

Arbitration is an extremely useful process where some technical expertise is required, or where greater flexibility than is available before the International Court is desired. Speed may also be a relevant consideration ... the establishment of arbitral tribunals has often been undertaken in order to deal relatively quietly and cheaply with a series of problems within certain categories ...

However, a disadvantage of referring disputes to arbitration rather than ITLOS or the ICJ is the costs associated with such a process. Unless the relevant arbitral tribunal decides otherwise, because of the particular circumstances of the case, the costs associated with the establishment and operation of an arbitral tribunal constituted under either Annex VII or Annex VIII are borne equally by the parties to the dispute.⁶² In contrast, both ITLOS and the ICJ have established premises and staff that are funded, respectively, by parties to the LOSC and the United Nations.

⁵⁶ See LOSC Annex VIII Article 1.

⁵⁷ LOSC Annex VIII Articles 1 and 2.

⁵⁸ LOSC Annex VIII Article 5(1).

⁵⁹ LOSC Annex VIII Article 5(2).

⁶⁰ LOSC Annex VIII Article 5(3). Adede observes that 'the Special Arbitral Tribunal under this Annex combines the function of fact-finding and making non-binding recommendations comparable to those of the conciliation procedure, with the normal function of rendering binding decisions ... No other third party procedures for judicial settlement under Article 287 of the Convention have this double function.': Adede, 1987, above n 4, observes at page 235.

⁶¹ Shaw, above n 18, pp. 958-959.

⁶² See LOSC Annex VII Article 7 and Annex VIII Article 4.

Exceptions to Compulsory Procedures and Non-compulsory Dispute Settlement

The basic position set out in Article 297(3) of the LOSC is that disputes concerning the interpretation or application of the provisions of the LOSC with regard to fisheries are subject to the compulsory procedures set out in Part XV Section 2. However, the requirement set out in Part XV Section 2 of the LOSC to engage in compulsory procedures entailing binding decisions is subject to a number of exceptions,⁶³ some of which specifically apply to fisheries-related disputes.

First, Article 297(1) provides that disputes concerning the exercise by a coastal State of its sovereign rights (including sovereign rights in the EEZ) or jurisdiction shall not be subject to the compulsory procedures entailing binding decisions set out in Part XV Section 2 of the LOSC except in the following cases:

- a) when it is alleged that a coastal State has acted in contravention of the provisions of this Convention in regard to the freedoms and rights of navigation, overflight or the laying of submarine cables and pipelines, or in regard to other internationally lawful uses of the sea specified in Article 58;
- b) when it is alleged that a State in exercising the aforementioned freedoms, rights or uses has acted in contravention of this Convention or of laws or regulations adopted by the coastal State in conformity with this Convention and other rules of international law not incompatible with this Convention; or
- c) when it is alleged that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment which are applicable to the coastal State and which have been established by this Convention or through a competent international organization or diplomatic conference in accordance with this Convention.

Furthermore, the basic position of article 297(3) is qualified by the requirement that States shall not be ...

obliged to accept the submission to such settlement [compulsory procedures under Article 287] of any dispute relating to its sovereign rights with respect to the living resources in the exclusive economic zone or their exercise, including its discretionary power for determining the allowable catch, its harvesting capacity, the allocation of surpluses to other States and the terms and conditions established in its conservation and management laws and regulations.

⁶³ These are set out in LOSC Part XV Section 3, entitled 'Limitations and Exceptions to Applicability of Section 2'.

However, in three specified circumstances where sovereign rights are flagrantly exercised to the detriment of other States, a 'compulsory conciliation' procedure under Section 2 of Annex V of the LOSC may be initiated at a disputant's request.⁶⁴ The three specified circumstances comprise core possible areas of fisheries disputes, namely allegations that:

- i) a coastal State has manifestly failed to comply with its obligations to ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not seriously endangered; or
- ii) a coastal State has arbitrarily refused to determine, at the request of another State, the allowable catch and its capacity to harvest living resources with respect to stocks which that other State is interested in fishing; or
- iii) a coastal State has arbitrarily refused to allocate to any State, under Articles 62, 69 and 70 and under the terms and conditions established by the coastal State consistent with this Convention, the whole or part of the surplus it has declared to exist.

The compulsory conciliation procedure is the same as the 'classical' conciliation set out in Article 284 of the LOSC and described above, except that States involved in a dispute are required to participate, and the Conciliation Commission is entitled to proceed despite a failure of a State to participate.⁶⁵ Under Article 13 of Annex V, the 'compulsory' Conciliation Commission also has the competence to decide whether the subject matter of the dispute falls within its mandate.⁶⁶ This is intended to prevent frustration of the proceedings through objections by the party compulsorily impleaded.⁶⁷ Article 297(3)(c) of the LOSC prohibits the Conciliation Commission from substituting its own discretion for that of the coastal State when deciding disputes. Although this requirement has been criticised on the basis that it may completely frustrate the Commission's work,⁶⁸ it is arguable that Article 297(3)(c) does not prevent the

⁶⁴ LOSC Article 297(3)(b).

⁶⁵ See Articles 11 and 12 of LOSC Annex V. Article 11 provides that '1. Any party to a dispute which in accordance with Part XV, Section 3, may be submitted to conciliation under this Section may institute the proceedings by written notification addressed to the other party or parties to the dispute. 2. Any party to the dispute, notified under paragraph 1 shall be obliged to submit to such proceedings.' Article 12 provides: 'The failure of a party or parties to the dispute to reply to notification of institution of proceeding or to submit to such proceeding shall not constitute a bar to the proceedings.' See Nordquist, Rosenne and Sohn, above n 4, p. 331 for detailed commentary regarding the compulsory conciliation procedure.

⁶⁶ Nordquist, Rosenne and Sohn, above n 4, p. 327. See also LOSC, Article 288(4).

⁶⁷ Nordquist, Rosenne and Sohn, above n 4, p. 327: 'In the case of compulsory recourse to conciliation ... precisely because recourse to the procedure is compulsory for the other part, it was considered necessary to provide for the determination of the competence of the Commission as a precaution against frustration of the proceedings.'

⁶⁸ *Ibid*, p. 321; cf Riphagen, W. 'Dispute Settlement in the 1982 UNCLOS' in Rozakis, C. and Stephanou, C. (eds) *The New Law of the Sea*, 1983, p. 281; and Rosenne, S. 'Settlement of Fisheries Disputes in the EEZ' in *The American Journal of International Law*, Vol. 73, 1989, 89 p. 99.

Commission from finding that that actions of a coastal State were made on ‘patently impermissible grounds.’⁶⁹

Optional Exceptions to Compulsory Procedures

Article 298 of the LOSC enables States to exclude the application of compulsory dispute settlement procedures by opting out of such procedures in relation to one or more of three categories of dispute, namely: (a) disputes regarding the delimitation of maritime boundaries and claims to historic waters; (b) disputes concerning military and law enforcement activities; and (c) disputes in respect of which the UN Security Council is exercising the functions assigned to it by the UN Charter.⁷⁰ A State may invoke an optional exception by special declaration, at or after ratification of the LOSC.

The optional exception relating to law enforcement activities undertaken by the coastal State is of particular relevance to fisheries-related dispute settlement,⁷¹ and raises a number of issues. First, it is unclear whether the exception applies to fisheries-related disputes. In light of the explicit reference to such disputes in paragraphs 2 and 3 of Article 297 (as discussed above), it is arguable that fisheries-related disputes may not be excepted by declaration under Article 298(1)(b). This, at least, is the view of the University of Virginia’s Centre for Ocean Law and Policy’s Commentary on the LOSC, which argues:⁷²

The important consequence of these changes was to make law enforcement activities under article 297, paragraph 1 (namely those related to navigation, overflight or the laying of submarine cables and pipelines, as well as those related to the protection and preservation of the marine environment) subject to the jurisdiction of a court or tribunal. Only disputes concerning the enforcement of provisions relating to marine scientific research or fisheries, which are not subject to the jurisdiction of a court or tribunal because of the express exceptions in article 297, paragraphs 2 and 3, can be excepted by a declaration under article 298. That means the enforcement of some provisions on marine scientific research or fisheries may not be excepted under article 298, paragraph 1(b).

Second, it is unclear whether the optional exception regarding law enforcement activities by a coastal State may be invoked in relation to disputes where law

⁶⁹ Churchill and Lowe, above n 9, p. 455.

⁷⁰ See LOSC Article 298.

⁷¹ LOSC Article 298(1)(b) provides: ‘When signing or ratifying or acceding to this Convention or at any time thereafter, a State, may without prejudice to the obligations arising under section 1, declare in writing that it does not accept any one or more of the procedures provided in section 2 with respect to one or more of the following categories of disputes ... disputes concerning military activities including ... disputes concerning law enforcement activities in regard to the exercise of sovereign rights or jurisdiction excluded from the jurisdiction of a court or tribunal under Article 297, paragraph 2 or 3.’

⁷² See UNCLOS 1982: A Commentary Vol V supra note pp. 134-137. The quoted extract is from p. 137.

enforcement activities of one coastal State intrude into the territorial sea of an adjacent or neighbouring coastal State (for example as a result of the continuation of a hot pursuit into such a zone). Intrusion into the territorial sea is patently illegal, as under LOSC Article 111(3), Article 23(2) of the High Seas Convention, and customary law, hot pursuit has to cease in the territorial sea (unless the relevant coastal State agrees otherwise). For this reason, arising from the sovereignty of States over their territorial sea, it is arguable that disputes arising from such an intrusion could not be excluded from compulsory dispute settlement by the law enforcement activities exception set out in LOSC Article 298(1)(b).

Applicable Law

LOSC Article 293 provides that at least in relation to compulsory procedures entailing binding decisions, the law to be applied to any fisheries or other dispute is to be the LOSC itself and other rules of international law not incompatible with the LOSC. Article 293 also permits decisions *ex aequo et bono*⁷³ if the parties to the dispute agree to this.⁷⁴ The fact that Article 293 applies only to courts or tribunals handing down binding decisions⁷⁵ provides a degree of flexibility to the non-binding conciliation procedures in the Convention – i.e. a conciliation commission may propose creative settlements without sole reference to the legal rights of the parties.⁷⁶

State Practice of FFA Members

As explained in detail above, the system of dispute settlement set out in Part XV of the LOSC provides considerable flexibility for parties to a dispute. Key areas of flexibility include the ability to select a preferred means of compulsory dispute settlement under LOSC Article 287 and exclude specific subject matter from compulsory dispute settlement procedures set out in LOSC Part XV Section 2 in accordance with LOSC Article 298. In order to take advantage of these possible implementations of Part XV of the LOSC, State parties are required to make official declarations at the time they sign the LOSC, ratify it or any time thereafter, either choosing a forum for compulsory dispute resolution under Article 287 or declaring that the State does not accept compulsory dispute resolution procedure with respect to one or more categories of dispute set out in Article 298.

⁷³ In the context of international dispute settlement a decision *ex aequo et bono* is made according to what is fair and in good conscience, not necessarily in accordance with what the law requires: see Trakman, L. 'Ex Aequo Et Bono: De-Mystifying an Ancient Concept' in *Chicago Journal of International Law*, Vol. 8, 2008, p. 621.

⁷⁴ LOSC Article 293(2).

⁷⁵ The relevant sections of the LOSC (Annex V, Section 1 – Conciliation; Annex V, Section 2 – Compulsory Conciliation) have no clauses clearly detailing the applicable law.

⁷⁶ See Shaw, above n 18, p. 927, who provides several examples of such proposals by conciliation commissions, including a proposal to settle a maritime boundary dispute between Iceland and Norway by establishing a joint development zone.

As of February 2009, only Australia and Palau have, among the FFA members, made declarations pursuant to Part XV of the LOSC.⁷⁷

Australia

Australia has declared acceptance of ITLOS and the ICJ as fora for compulsory dispute settlement under LOSC Article 287. Australia has also made a declaration under Article 298 excluding disputes referred to in Article 298(1)(a) (regarding the delimitation of maritime boundaries and claims to historic waters) from the compulsory dispute settlement procedures set out in Part XV, Section 2. The relevant Australian declaration provides in full:⁷⁸

The Government of Australia declares, under paragraph 1 of article 287 of the United Nations Convention on the Law of the Sea done at Montego Bay on the tenth day of December one thousand nine hundred and eighty-two that it chooses the following means for the settlement of disputes concerning the interpretation or application of the Convention, without specifying that one has precedence over the other:

- (a) the International Tribunal for the Law of the Sea established in accordance with Annex VI of the Convention; and
- (b) the International Court of Justice.

The Government of Australia further declares, under paragraph 1 (a) of article 298 of the United Nations Convention on the Law of the Sea done at Montego Bay on the tenth day of December one thousand nine hundred and eighty-two, that it does not accept any of the procedures provided for in section 2 of Part XV (including the procedures referred to in paragraphs (a) and (b) of this declaration) with respect to disputes concerning the interpretation or application of articles 15, 74 and 83 relating to sea boundary delimitations as well as those involving historic bays or titles.

These declarations by the Government of Australia are effective immediately.

8 April 2002

Palau

Palau has also made a declaration under Article 298 excluding disputes referred to in Article 298(1)(a) from the compulsory dispute settlement procedures set out in Part XV Section 2. The declaration by Palau provides in full:⁷⁹

⁷⁷ This conclusion is based on a review of the United Nations Treaty Collection online database, available at <<http://treaties.un.org>>

⁷⁸ United Nations Convention of the Law of the Sea, Montego Bay, 10 December 1982, Australia: Declaration under Articles 287 and 298, UN Ref. C.N.326.2002.TREATIES-4, available at <<http://treaties.un.org/doc/Treaties/2005/10/20051007%2005-26%20AM/Related%20Documents/CN.326.2002-Eng.pdf>>

⁷⁹ United Nations Convention of the Law of the Sea, Montego Bay, 10 December 1982, Palau: Declaration under Article 298, UN Ref. C.N.348.2006.TREATIES-2, available at

The Government of the Republic of Palau declares under paragraph 1 (a) of Article 298 of the 1982 United Nations Convention on the Law of the Sea that it does not accept compulsory procedures entailing binding decisions relating to the delimitation and/or interpretation of maritime boundaries.

28 April 2006

Remaining FFA Members

The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand (and Tokelau), Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu have made no declarations under either Articles 287 or 298 of the LOSC. However, New Zealand has accepted the compulsory jurisdiction of the International Court of Justice by declaration under Article 36(2) of the ICJ Statute. The New Zealand declaration provides:⁸⁰

I have the honour, by direction of the Minister of Foreign Affairs of New Zealand, to declare on behalf of the Government of New Zealand:

- (I.) The acceptance by the Government of New Zealand of the compulsory jurisdiction of the International Court of Justice by virtue of the Declaration made on 1 April 1940 under Article 36 of the Statute of the Permanent Court of International Justice and made applicable to the International Court of Justice by paragraph 5 of Article 36 of the Statute of that Court, is hereby terminated.
- (II.) The Government of New Zealand accept as compulsory, ipso facto, and without special agreement, on condition of reciprocity, the jurisdiction of the International Court of Justice in conformity with paragraph 2 of Article 36 of the Court over all disputes other than:
 - (1) Disputes in regard to which the parties have agreed or shall agree to have recourse to some other method of peaceful settlement;
 - (2) Disputes in respect of which any other party to the dispute has accepted the compulsory jurisdiction of the International Court of Justice only in relation to or for the purpose of the dispute: or where the acceptance of the Court's compulsory jurisdiction on behalf of any other party to the dispute was deposited or ratified less than twelve months prior to the filing of the application bringing the dispute before the Court;
 - (3) Disputes arising out of, or concerning the jurisdiction or rights claimed or exercised by New Zealand in respect of the

<<http://treaties.un.org/doc/Treaties/2005/10/20051007%2005-26%20AM/Related%20Documents/CN.348.2006-Eng.pdf>>

⁸⁰ This declaration is published on the ICJ website at

<<http://www.icj-cij.org/jurisdiction/index.php?p1=5&p2=1&p3=3&code=NZ>>

exploration, exploitation, conservation or management of the living resources in marine areas beyond and adjacent to the territorial sea of New Zealand but within 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

This Declaration shall remain in force for a period of five years from 22 September 1977 and thereafter until the expiration of six months after notice has been given of the termination of this Declaration provided that the Government of New Zealand reserves the right at any time to amend this Declaration in the light of the results of the Third United Nations Conference on the Law of the Sea in respect of the settlement of disputes.

New York, 22 September 1977.

Conclusion

Part XV of the LOSC provides parties to the Convention with considerable flexibility to determine and utilise their preferred means for resolving disputes, including fisheries-related disputes, concerning the interpretation and application of the Convention. Key areas of flexibility include the ability to select a preferred means of compulsory dispute settlement under LOSC Article 287 and exclude specific subject matter from compulsory dispute settlement procedures set out in LOSC Part XV Section 2 in accordance with LOSC Article 298. In order to take advantage of these possible implementations of Part XV of the LOSC, State parties are required to make official declarations at the time they sign the LOSC, ratify it or any time thereafter, either choosing a forum for compulsory dispute resolution under Article 287 or declaring that the State does not accept compulsory dispute resolution procedure with respect to one or more categories of dispute set out in Article 298.

FFA member countries that have not made official declarations regarding Part XV of the LOSC are advised to identify a preferred implementation of Part XV and incorporate this into fisheries governance policies. Such action would enable FFA member countries to be well-prepared for international fisheries-related disputes in the Western and Central Pacific Region and to avoid any perceptions of bad faith that may be associated with making declarations regarding Part XV in haste following the development of an international fisheries dispute.

Bibliography

Adede, A. 'Settlement of Disputes Arising under the Law of the Sea' in *The American Journal of International Law*, Vol. 69, 1975, p. 798.

Adede, A. 'Prolegomena to the Dispute Settlement Part of the Law of the Sea Convention' in *New York University Journal of International Law and Politics*, Vol. 10, 1977, p. 253.

Adede, A. *The System for Settlement of Disputes under the UN Convention of the Law of the Sea*, 1987.

Birnie, P. 'Dispute Settlement Procedures in the 1982 UNCLOS' in Butler, W.E. (ed) *The Law of the Sea and International Shipping*, Anglo-Soviet Post-UNCLOS Perspectives, 1985, p. 46.

Churchill, R. and Lowe, V. *The Law of the Sea*, 3rd edition, 1999.

Jaenicke, G. 'Dispute Settlement under the Law of the Sea Convention' in *ZaöRV* 813, Vol. 43, 1983, p. 817.

Klein, N. *Dispute Settlement in the UN Convention on the Law of the Sea*, 2005.

Nordquist, M., Rosenne, S. and Sohn, L. (eds) *UN Convention on the Law of the Sea 1982: A Commentary*, Vol V, 1989.

Riphagen, W. 'Dispute Settlement in the 1982 UNCLOS' in Rozakis, C. and Stephanou, C. (eds) *The New Law of the Sea*, 1983, p. 281.

Rosenne, S. 'Settlement of Fisheries Disputes in the EEZ' in *The American Journal of International Law*, Vol. 73, 1989, p. 99.

Rosenne, S. 'UNCLOS III – The Montreux (Riphagen) Compromise' in Bos, A. and Siblesz, H. (eds) *Realism in Law Making: Essays in International Law in Honour of Wilhelm Riphagen*, 1986, p. 169.

Shaw, M. *International Law*, 5th edition, 2003.

Sohn, L. 'Settlement of Disputes Arising out of the Law of the Sea Convention' in *San Diego Law Review*, Vol. 12, 1975, p. 495.

Trakman, L. 'Ex Aequo Et Bono: De-Mystifying an Ancient Concept' in *Chicago Journal of International Law*, Vol. 8, 2008, p. 621.

7. Partners or Adversaries? The Role of NGOs in the Implementation of International Fisheries Instruments

Pio E. Manoa

Introduction

Non-government organisations (NGOs) are regarded as ‘heavyweight’ actors in international fora.¹ The term NGO refers to any organisation that is not a government or inter-governmental organisation. In fisheries governance in the Western and Central Pacific Ocean, the increasing involvement of NGOs is a consequence of post United Nations Conference on Environment and Development (UNCED)² developments and globalisation processes. The 1992 UNCED, also referred to as the Earth Summit, provided the platform for greater participation of civil society in the pursuit of sustainable development and key fisheries principles were elaborated. Other international meetings such as the World Summit on Sustainable Development have reaffirmed principles raised since the Earth Summit.

In fisheries decision-making at the regional and international levels, the participation of interested stakeholders including NGOs is now the norm. When the 1982 *United Nations Convention on the Law of the Sea*³ (LOSC) was negotiated, the emphasis was on promoting cooperation among States and between States and inter-governmental organisations. This is reflected in the duty to cooperate for conservation and management purposes in waters under national jurisdiction⁴ as well as on the high seas.⁵ As the fisheries management paradigm evolved to include more environmental principles and the promotion of transparency and accountability, texts of international fisheries instruments extended participation to NGOs. Explicit references to participation are made in the 1995 Food and Agricultural Organisation Code of Conduct for Responsible

¹ Betsill, M. M. & Corell, E. ‘NGO Influence in International Environmental Negotiations: A Framework for Analysis’ in *Global Environmental Politics*, Vol. 1, No. 4, 2001, pp. 65-85; Clark, A. M. ‘Non-Governmental Organizations and their Influence on International Society’ in *Journal of International Affairs*, Winter 1995, Vol. 48, No. 2, 1995, pp. 507-522; Charlton, R. & May, R. ‘NGOs, Politics, Projects and Probity: A Policy Implementation Perspective’ in *Third World Quarterly*, Vol. 16, No. 2, 1995, pp. 237-255; Warkentin, C. *Reshaping World Politics. NGOs, the Internet, and Global Civil Society*, Rowman & Littlefield Publishers, Lanham, Maryland, 2001.

² United Nations Conference on Environment and Development, 3-14 June 1992, Rio de Janeiro, Brazil.

³ United Nations Convention on the Law of the Sea, Montego Bay, Jamaica, concluded on 10 December 1982, in force 16 November 1994, 1833 UNTS 3; 21 ILM 1261 (1982), hereinafter referred to as LOSC.

⁴ See Articles 61 and 64 LOSC for instance.

⁵ For example, Article 118 LOSC.

Fisheries (FAO Code of Conduct).⁶ In addition, both the 1995 United Nations Fish Stocks Agreement⁷ (UNFSA) and the 2000 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean⁸ (WCPF Convention) explicitly promote transparency in decision-making processes and other activities.⁹

At the national level, the extent of NGO recognition and participation in national fisheries consultations varies throughout the region and depends primarily on the policy of the host government and its international and regional commitments, the approach and reputation of the NGO, and the nature of that NGO's activity. Generally, most NGOs are still considered to be controversial in their approach with ulterior motives believed to be disguised in the relevance and importance of their programmes in the region.

This chapter places emphasis on NGOs accredited as observers to the Western and Central Pacific Fisheries Commission (WCPFC).¹⁰ The central question is whether NGOs should be considered partners or adversaries in the implementation of fisheries instruments. In addressing the question, this chapter first provides an historical overview of the activities of accredited NGOs. A cursory analysis of NGO fisheries management objectives is then made and compared with objectives provided in fisheries instruments. A discussion of existing and future roles played by NGOs follows the analysis of objectives.

An Overview of Accredited NGOs

The NGOs accredited with the WCPFC may be broadly categorized as environmental NGOs or industry NGOs. Accredited NGOs have either been working in the Pacific for years or are relative newcomers to the region. Generally,

⁶ Food and Agricultural Organisation (FAO), *Code of Conduct for Responsible Fisheries*, adopted at the 28th session of the FAO Conference, Rome, Italy, 31 October 1995, hereinafter referred to as FAO Code of Conduct.

⁷ *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* 34 ILM 1542, 1995, hereinafter referred to as UNFSA.

⁸ Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, adopted 5 September 2000, in force 19 June 2004 hereinafter referred to as WCPF Convention.

⁹ UNFSA, Article 12; and WCPF Convention, Article 21.

¹⁰ The NGOs that have been accredited as observers to the Western and Central Pacific Fisheries Commission include: Greenpeace, Marine Stewardship Council (MSC), Sea Turtle Restoration Project, Pacific Islands Tuna Industry Association (PITIA), World Wildlife Fund, Traffic, the International Game Fishing Association, Humane Society, Blue Ocean Institute, Earth Island Institute, Constitution of the Centre for Environmental Law and Community Rights Inc., Organisation for the Promotion of Responsible Tuna Fisheries (OPRT), World Tuna Purse Seine Organisation (WTPO), Birdlife International, Oceana, and Agreement for the Conservation of Albatross and Petrels.

NGOs that are not based in the region are not as sensitive to the realities and uniqueness of Pacific Island nations compared to locally based ones.

Each environmental NGO campaigns on their own specific interests and on interests that overlap with other NGOs. For instance, Oceana aims to protect the world's oceans but its most recent objective in the region is the protection of endangered shark species.¹¹ Similar concerns on sharks have been raised by others such as World Wildlife Fund (WWF) and Traffic.¹² Overlaps may not be considered a total waste of resources if there is complementarity. Another example is by-catch. The majority of accredited NGOs campaign for the reduction of by-catch in the fishery and while some campaign broadly on the issue, others advocate the protection of specific species. For example, the Sea Turtle Restoration Project recently campaigned for the protection of Leatherback turtles, the Earth Island Institute advocates 'dolphin safe' tuna and monitors tuna canneries, while Birdlife International is focused on the mitigation of albatross and petrels caught in the longline fishery. Amidst overlapping campaign objectives, a healthy competitive environment is emerging. In some cases, the competition is for greater external support for their respective cause.

Unlike environmental NGOs, industry NGOs comprised of the Marine Stewardship Council (MSC), the International Game Fishers Association, the Pacific Islands Tuna Industry Association (PITIA), the World Tuna Purse Seine Organisation (WTPO), and the Organisation for the Promotion of Responsible Tuna Fisheries (OPRT) are diverse. The MSC and OPRT are examples of industry NGOs concerned about sustainability and consumer choice. The MSC was established through a partnership between WWF and Unilever in the mid-1990s and has developed a widely recognised set of environmental principles for the sustainability assessment of a fishery.¹³ Once a fishery satisfies the criteria, it can be certified by MSC. In contrast, the OPRT aims to "link the oceans with the consumers and promote sustainable use of tunas."¹⁴ Established in 2000, the OPRT comprises tuna longline producers from various countries,¹⁵ and associations of traders, distributors, consumers and public interest organisations.

On the other hand, PITIA and WTPO advocate interests of their members in the exploitation of fisheries resources. WTPO was created in 2001 and PITIA was formed three years later. The former is comprised mainly of purse seine vessel owners from developed fishing nations while the latter is made up of national

¹¹ WCPFC Fourth Regular Session, Tumon, Guam, *Statement by Oceana*, WCPFC4-2007/OP16, 7 December 2007.

¹² Lack, M. and Sant, G. *Confronting Shark Conservation Head On!* TRAFFIC International, 2006.

¹³ For more information see MSC website, accessed 16/12/08. <http://www.msc.org/>

¹⁴ OPRT official website, accessed 16/12/08. http://www.oprt.or.jp/eng/e_home.html

¹⁵ Japan, Chinese Taipei, Republic of Korea, the Philippines, Indonesia, China, Ecuador, Seychelles and Fiji.

commercial tuna associations and operators in Forum Island countries.¹⁶ The two organisations are in direct competition for access to the lucrative high seas fish stocks. Although PITIA members are expected to have an advantage over WTPO in terms of access to waters under national jurisdiction, the combined sum of fishing capacity of its members is small. PITIA advocates increased participation of its members in the fishery and greater benefits for Pacific communities. WTPO on the other hand, argues for improving levels of access to the fishery and its members contribute a significant amount of capacity to the fishery. One can foresee intense debate between these two NGOs in future. The scenario will be similar to relations between Pacific Island nations and Distant Water Fishing Nations (DWFNs) where Pacific nations are calling for greater participation and benefits and DWFNs are reluctant to relinquish access privileges to the fishery.

The final example of an industry NGO is the International Game Fish Association (IGFA).¹⁷ Unlike other industry NGOs, the IGFA represents recreational fishers. IGFA was formed in 1939 and as the governing body for international recreational fishing, formulates rules for ethical angling practices. The IGFA currently plays a passive role in WCPFC matters and is likely to challenge the WTPO and the PITIA when its target species, including swordfish and striped marlin, are over-exploited.

Putting these issues aside, this chapter now focuses on the NGOs that are based in the region: Greenpeace, WWF and PITIA. A discussion of the rationale for their establishment in the Pacific and their current activities sets the context for the next discussion of objectives and trends.

Greenpeace is known for its confrontational stand in raising awareness of environmental concerns. Since witnessing underground nuclear tests in Amchitka in 1971, the organisation has set up offices in at least forty countries. Its first activity in the Pacific Islands region was the campaign against nuclear tests in the middle of the 1970s.¹⁸ Once nuclear tests in the region were stopped, Greenpeace worked to establish an office in Fiji but faced some difficulty with registration until 1994 when a company was successfully incorporated. In the early years of its operation the organisation was funded by its international office. When funds were no longer available, the organisation had to merge with its Australian office and now operates under Greenpeace Australia Pacific. The organisation's activities are funded by individual donors. The organisation has had to adapt to working within

¹⁶ Forum Island member countries are: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

¹⁷ International Game Fish Association website. <http://www.igfa.org/>

¹⁸ Weyler, R. *Greenpeace: The Inside Story How a Group of Ecologists, Journalists and Visionaries Changed our World*, Raincoat Books, 2005.

the Pacific Islands context but the challenge continues. The focus of its fisheries campaign is pirate (or illegal, unreported and unregulated - IUU) fishing with attention on fishers, transshipments, ports and markets.¹⁹

The World Wildlife Fund for Nature was established over five decades ago with the ultimate goal of building a future where people live in harmony with nature. Over time its campaigns and priority areas of focus have evolved. In 1990, the World Wildlife Fund for Nature South Pacific Programme (WWF-SPP) was set up with the aim of promoting its climate change campaign and initiating a regional marine programme.²⁰ WWF-SPP is funded primarily by the WWF network, government and aid agencies, corporations and foundations. In addition to its regional office, WWF also operates national offices in the Cook Islands, Solomon Islands, Papua New Guinea and Fiji. WWF also utilises its partner organisations, particularly TRAFFIC Oceania to further its campaign objectives.²¹ TRAFFIC Oceania was set up in 1987 and its main focus is to work with governments and other stakeholders to build capacity to implement the 1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES)²² within the region.

PITIA is the other accredited NGO based in the region. Its membership is restricted to national commercial export tuna associations and operators in the Forum Island countries. The association is an example of a locally grown NGO incorporated by regional tuna representatives at a workshop in 2004.²³ Although the workshop also included participants from government and academia, industry participants led the formulation of objectives and functions of the association. The objectives are tailored to allow the association to provide a united voice for the domestic tuna fishing and associated industries in FFA Island countries, to promote the sustainable use of tuna and related resources taking into account economic and biological considerations, and to advocate interests of its members in negotiations at all levels.²⁴ PITIA is seen as a key proponent for greater participation by small island developing States (SIDS) and is expected to play an important role in raising awareness of special consideration for Pacific SIDS and in defining development aspirations of FFA Island countries.

¹⁹ Greenpeace website, accessed 14/12/2008. <http://www.greenpeace.org.au/>

²⁰ See World Wildlife Fund for Nature website, accessed 18/12/2008. <http://www.wwf-pacific.org.fj/>

²¹ See TRAFFIC Oceania website, accessed 18/12/2008. <http://www.traffic.org/oceania/>

²² Convention on International Trade in Endangered Species of Wild Fauna and Flora, concluded on 3 March 1973, in force 1 July 1975, 27 UST 1087; TIAS 8249; 993 UNTS 243. Hereinafter referred to as CITES.

²³ Summary report of discussion on the formation of a Regional Tuna Industry Association as agreed at the Workshop on the Implications of the Western and Central Pacific Fisheries Convention to the Private Sector, Forum Secretariat, Suva, Fiji Islands, 14-16 September 2004.

²⁴ *Ibid.*

The process that each accredited NGO follows to develop its objectives and priorities may differ. In the example of PITIA, objectives and functions of the organisation were defined at a regional meeting and implemented by its executive committee. For Greenpeace and WWF-SPP, planning meetings are conducted at the regional and international levels in which campaign objectives and strategies are negotiated and defined. The inclusion of regional perspectives depends largely on where the meetings are held and the active participation of regional representatives. It follows generally that the farther the meeting from the region, the weaker the representation. A short discussion on influences on NGOs is warranted.

NGOs are influenced by their members, partners, donor agencies, governments, the political environment in which they operate, and their employees and representatives. The extent of influence within each NGO shifts between a wide range. For instance, Greenpeace indicates that it only accepts support from individual donors and does not accept money from corporations or governments. This means that individual contributors would have some influence, albeit small, on the campaigns that the organisation runs but the finer details of the campaign are the responsibility of the campaign team. The campaign team will undertake the necessary analyses and develop the objectives and strategy. The approach of Greenpeace is unique in that the organisation does not work in partnership with governments. Compared to other NGOs, the organisation has been described on the one hand as, 'loud' and 'bold' and on the other hand as 'eco-terrorists.'

While the campaign planning processes may be similar, the approach of WWF is considerably different from that taken by Greenpeace. WWF-SPP works with donor agencies, national and regional partners and governments. Memorandums of Understanding have been concluded with key partners. The campaign approach involves working in partnership with governments, regional organisations and communities. This approach promotes strong working relationships and fosters long term commitment by all parties. Compared to Greenpeace, WWF is 'quieter' and perhaps more strategic in partnering with other organisations and governments. Through partnerships with government, WWF is able to influence national policy and play a lead role in national programmes. Governments also rely on NGOs to implement and legitimise national policies.²⁵

Influences aside, NGOs have been described as not being 'technically' or 'democratically' fit to engage in fisheries decision-making.²⁶ Taking technical fitness first, all of the locally based NGOs have technical capabilities in their respective areas of interest. In some instances, these capabilities may be of a

²⁵ Mikalsen, K. H., Hernes, H-K., and Jentoft, S. 'Leaning on User-groups: The Role of Civil Society in Fisheries Governance' in *Marine Policy* Vol. 31, 2007, pp. 201 – 209 at 207.

²⁶ *Ibid.*

higher level than that available in national administrations. This is attributed, in part, to the attraction of higher salaries and benefits provided by NGOs compared to those offered by governments. NGOs have access to a wider network of individuals that are either employed or act as advisors. For instance WWF-SPP has direct access to fisheries trade specialists in TRAFFIC and other individuals throughout its network. Having said this, the point needs to be made that technical experts may not necessarily be knowledgeable about the region, behaviour of fishers, the characteristics of the stocks concerned, or other matters particular to Pacific Islanders.

On the question of democratic fitness, the answer varies from one NGO to another. Strictly speaking, the accredited NGOs discussed in this chapter are accountable to its members and partners. The membership base may be a minute fraction of the population of the country or region in which the NGO is based. NGOs normally do not say that they represent the society but the NGO's interests and activities may appeal to others beyond its membership. Should there be a precondition for NGO involvement in fisheries consultations and decision-making? It has been said that before governments establish partnerships with an NGO, the NGO must show that it is internally democratic and characterised by genuine popular involvement.²⁷ When applied to national or regional NGOs in the Pacific region these two criteria attract some debate.

Firstly, the internal democratic processes of an NGO are defined by that NGO's governing body. The democratic processes of an NGO affiliated with a wider international network would be different from another that is developed locally. The former may have some control over campaign direction but would be heavily influenced by decision-making authorities overseas. Meaningful participation in any decision-making by locally based representatives of international NGOs is critical to ensuring appropriate national and regional representation. The foregoing description would apply to Greenpeace and WWF. Both operate offices in the region; however, decision-making processes allow for wider input from their respective international offices. It follows that local participation and representation in campaign decision-making will remain a challenge.

In contrast, a locally grown NGO would be primarily controlled locally or from within the region and would be more committed to satisfying interests of its members. PITIA, for instance, has an executive committee made of industry representatives from the region that are elected and mandated by the membership to carry out functions of the organisation. Committee members are accountable to members. In general, there should be greater participation of members in a locally

²⁷ Hadenius, A and Ugglä, F. 'Making Civil Society Work, Promoting Democratic Development: What Can States and Donors Do?' in *World Development*, Vol. 24, No. 10, 1996, pp. 1621 – 39.

grown NGO rather than an international NGO. Genuine popular involvement therefore differs between NGOs.

Returning to the question on preconditions for NGO involvement in fisheries consultations and decision-making, governments ultimately determine the extent of participation based on their policies. The requirements of internal democratic processes and genuine involvement are quite useful in the Pacific Islands context. By satisfying these and other attributes, NGOs are supporting transparency and better governance. Having discussed accredited NGOs briefly and how they are influenced and function, this chapter now devotes attention to fisheries objectives of selected NGOs.

Complementary or Conflicting Objectives?

Since the 1992 Earth Summit wide stakeholder participation in sustainable development is encouraged at all levels. The FAO Code of Conduct is the first instrument legitimising NGO involvement in fisheries management and decision-making. The FAO Code of Conduct, a voluntary instrument, is directed toward a wide constituency from members and non-members of the FAO, fishing entities, to sub-regional, regional and global organisations, “whether governmental or non-governmental, and all persons concerned with the conservation of fisheries resources and management and development of fisheries.”²⁸ In the strict legal sense, implementation is the responsibility of States that are committed to satisfying their rights and obligations under various instruments. But NGOs and other stakeholders mentioned are mandated to collaborate in the fulfillment and implementation of the objectives and principles contained in the FAO Code of Conduct, promote its understanding, as well as its voluntary acceptance and effective application.²⁹ NGOs and other relevant organisations “should be afforded the opportunity to take part in meetings of regional and sub-regional fisheries management organisation and also be given timely access to the records and reports of such meetings.”³⁰

As correctly put, the FAO Code of Conduct provides the justification for NGO participation in fisheries management decision-making.³¹ If NGO participation in the meetings of the FAO Committee of Fisheries (COFI) is anything to go by, NGO participation has increased at least two and half times between 1995 and

²⁸ Article 1.2, FAO Code of Conduct.

²⁹ See also Articles 4.1 and 4.4, FAO Code of Conduct.

³⁰ Article 7.1.6, FAO Code of Conduct.

³¹ Hernes, K-H. & Mikalsen, K. H. ‘From Protest to Participation? Environmental Groups and the Management of Marine Fisheries’ in *Mobilization: An International Journal*, Vol. 7, No. 1, 2002, pp. 15 – 28.

2005.³² This is in light of the fact that the Fisheries Department of the FAO has actively encouraged NGO participation in COFI meetings since 1983.

NGOs participated actively in elaborating the FAO Code of Conduct. The FAO highlights that NGOs “were able to provide information and insights to the elaboration process concerning a broad range of global fisheries and environmental problems and, in some cases, to sensitize government representatives about the extent and severity of these issues.”³³ NGOs clearly made a positive contribution to the process and consequently influenced provisions supporting their involvement in the implementation.

The FAO Code of Conduct, however, does not qualify NGOs or set conditions for NGO engagement. The Code promotes inclusiveness and broad participation to achieve maximum effectiveness in fisheries governance. National governments are responsible for determining the extent of NGO participation based on their policies. Unlike national governments, regional and sub-regional fisheries management organisations are influenced by international developments and are required to promote transparency and inclusivity.

Should Complementarity or Conflict in Objectives Matter?

In promoting inclusivity, the intention appears to be that as long as the objective for an NGO is related to the conservation and management of fisheries resources and the trade thereof, they have a role to play in the implementation of the FAO Code of Conduct.

This chapter argues that broad complementarity of objectives held by NGOs and fisheries management organisations should be an important consideration. In situations where objectives conflict to a large degree, the objectives of fisheries instruments will be undermined. The question whether this consideration should be placed only at the international and regional levels or should extend to the national level also arises.

Fisheries objectives in post-Earth Summit international fisheries instruments advocate long term sustainable fisheries and responsible fisheries.³⁴ A cursory analysis of the broad objectives of accredited NGOs finds that there is general complementarity of objectives. The industry NGOs support sustainability and responsible fishing. The objectives of environmental NGOs easily complement responsibility in the fishery yet dissenting views exist in what sustainable fisheries

³² FAO NGO/CSOs Fact Sheet, accessed 7/03/2008.

ftp://ftp.fao.org/Fl/DOCUMENT/web/activities/regional_IGOs.pdf.

³³ FAO Code of Conduct.

³⁴ Article 2, UNFSA; Article 2, WCPF Convention.

should mean. Other accredited environmental NGOs are more concerned about specific species rather than sustainability of the fishery as a whole, arguably undermining an ecosystem approach to fisheries governance. While there is congruity between the broad objectives of fisheries at the international and regional levels and the broad objectives of NGOs, conflicts may arise in the interpretation and application of principles.

The need for complementarity of objectives is heightened at the national level. In addition to the fisheries objectives in binding instruments, national governments in the Pacific Islands region have their own objectives and policies. Typical fisheries objectives and policies in the region promote, among other things, greater local participation in the fishery, increased returns, the realisation of development aspirations, and the objective of maximum sustainable yield. Sovereignty over resources extends to the limits of the territorial sea, and beyond that, sovereign rights to conserve, manage, explore and explore continue to the limits of the exclusive economic zone.³⁵ Given these powers, the history of foreign exploitation of resources in national waters, and the absence of capacity by most Pacific Island States to participate in the fishery, national objectives are in most cases skewed towards greater local development and participation. This is where conflict can arise.

The environmental NGOs based in the region acknowledge the situation and aspirations of Pacific Island States and to a certain extent are sympathetic. WWF-SPP for instance, considers the critical role of coastal communities to minimise adverse economic and social impacts and to support sustainable human communities and ecosystems. Its principles of ecosystem-based management include the reality that human use and values of ecosystems are at the core of establishing objectives for the use and management of natural resources.³⁶ There is also recognition that economic, social and cultural factors can affect resource management. In promoting an ecosystem-based management approach, WWF considers that it is vital to take into account the needs and aspirations of Pacific Island communities.

Like WWF, Greenpeace supports small-scale fisheries with less adverse impacts to the ecosystem rather than large-scale industrial fisheries. The first fisheries principles developed by Greenpeace advocates the quest for ecologically responsible low-impact fisheries.³⁷ The organisation seeks “a substantial transformation from fisheries production dominated by large-scale, capital-intensive, destructive methods to smaller scale, community-based, labour-

³⁵ See Parts II, V and VI, LOSC.

³⁶ Ward, T.; Tarte, D.; Hegerl, E. and Short, K. *Policy Proposals and Operational Guidance for Ecosystem-based Management of Marine Capture Fisheries*, WWF Australia, 2002.

³⁷ Greenpeace International, *Principles for Ecologically Responsible Low-Impact Fisheries*, May 1998.

intensive fisheries using ecologically responsible, selective fishing technology and environmentally sound practices.”³⁸ Further, recent messaging of the organisation challenges IUU fishing, capacity migration and overfishing in the region.³⁹

NGO recognition of local realities aside, the FAO Code of Conduct elaborates general principles that all stakeholders may wish to adopt in its decision-making.⁴⁰ These principles were derived from the Earth Summit. The UNFSA is the first binding international instrument that includes broad principles. General principles supporting conservation and management must be applied in areas under national jurisdiction and in areas beyond.⁴¹ Accredited NGOs are in a useful position to contribute to the debate on the implementation of principles at all levels. While dissenting views on relevant considerations may exist between NGOs and fisheries management organisations, debate is healthy and is constructive in the evolutionary process. This chapter exemplifies NGO views on two principles – the precautionary approach and the ecosystem approach and how these contribute to implementation.

Is There Conflict in the Application of the Precautionary Approach and Ecosystem-Based Approach?

The international community defined the precautionary approach in principle 15 of the Rio Declaration.⁴² The UNFSA elaborates on how the precautionary approach is to be implemented and introduces guidelines in Annex II.⁴³ Simply put, precautionary reference points in the form of limit reference points and target reference points are to be used. Limit reference points restrict fishing levels within safe biological limits that can produce maximum sustainable yield, while target reference points are designed to meet management objectives. The fishing level that generates maximum sustainable yield “should be regarded as the minimum standard for limit reference points.”⁴⁴ While States and industry groups are generally content with the framework for the application of the precautionary approach, NGOs support the adoption and implementation of higher standards.

For instance, Greenpeace asserts that to cover for the lack of understanding of marine ecological processes, fisheries management must be based on the

³⁸ Section 2.3, 1998, Greenpeace Principles.

³⁹ See for instance Greenpeace, *Development without Destruction: Towards Sustainable Pacific Fisheries*, 2004, 19pp; Greenpeace, *Plundering the Pacific Summary of Findings of Greenpeace Joint Enforcement Exercises with FSM and Kiribati*, September 4th – October 23rd 2006, 6pp; Greenpeace, *Tuna Pirates of the Pacific*, 2007, 15pp; Greenpeace, *Freedom for the Seas for Now and for the Future*, May 2005, 4pp.

⁴⁰ Article 7, FAO Code of Conduct.

⁴¹ Article 3, UNFSA, Article 7, WCPF Convention.

⁴² United Nations General Assembly, *Report of the United Nations Conference on Environment and Development*, 3 – 14 June 1992, Rio de Janeiro, Brazil. A/CONF.151/26 (Vol. I), 12 August 1992, Annex I

⁴³ See also Article 7.5, FAO Code of Conduct.

⁴⁴ Annex II, Section 7, UNFSA.

Precautionary Principle with emphasis on prevention of damage rather than efforts to repair mistakes through mitigation or restoration measures.⁴⁵ According to Greenpeace, exploiters and institutions responsible for management have a fundamental duty of care.

A duty of care arguably exists today in almost all FFA member jurisdictions. This duty arises once general fisheries principles are incorporated in national legislation. Fisheries legislation binds the government and the public. Therefore, in the event that a fisheries management institution does not exercise its duty through an act or omission, there would be, at the very least, grounds for a review of the relevant decision. The approach is reactive yet may still have a role in mitigating the effects on ecosystems.

Greenpeace refers in passing to reference points but then calls for the performance of management procedures to be tested before being implemented. Simulations or otherwise should be made under a “wide range of alternative assumptions and scenarios about the dynamics of the system.”⁴⁶ The prerequisite for the simulation of management procedures to ensure that a high probability for conservation and management of the stocks and the environment is attained, is not an explicit requirement in fisheries instruments. Testing of reference points and management procedures is, however, important to ensure that stocks and their ecosystems are sustained. Although not explicit, the analysis of management options under various fishing conditions already occurs to an extent at the national and regional levels in the formulation of total allowable catches and the preparation of WCPFC management measures. The application of target and limit reference points would also attract an analysis of biomass and economic yields under various conditions.

WWF also supports the application of the precautionary approach and puts the approach within its ecosystem-based management framework. WWF publications provide constructive commentary on the application of the approach and recommend best practices.⁴⁷ Management strategies are to be based on precautionary reference points “reflecting a sufficiently high probability of sustainability” for all target stocks.⁴⁸ The threshold of a high probability of sustainability advocated by both WWF and Greenpeace goes beyond the requirement in the UNFSA and related instruments. Annex II of the UNFSA provides that strategies are to “maintain or restore populations of harvested stocks, and where necessary associated or dependent species, at levels consistent with

⁴⁵ Section 2.2, Greenpeace Principles.

⁴⁶ Section 2.2(6), Greenpeace Principles.

⁴⁷ For instance, Willock, A. & Lack, M. *Following the Leader: Learning from Experience and Best Practice in Regional Fisheries Management Organisations*, WWF International and TRAFFIC International, 2006.

⁴⁸ *Ibid.* p. 17.

previously agreed precautionary reference points.”⁴⁹ As noted earlier the rate of fishing mortality that generates maximum sustainable yield is regarded as a minimum standard for limit reference points. Neither WWF nor Greenpeace refer to maximum sustainable yield as the criteria for setting limit reference points and this is perhaps due to the fact that, in their view, the maximum sustainable yield standard may not be ideal for ensuring sustainability of target stocks and associated species.

Based on the above, it is apparent that there is some incongruity between the way both WWF and Greenpeace and international fisheries instruments advocate the precautionary approach. There is agreement on the definition and the application of reference points. But the threshold of a high probability for sustainability goes beyond the standard in international fisheries instruments. A high probability involves more effort than merely maintaining or restoring populations. Both NGOs argue that fisheries managers need to apply the precautionary approach to the wider ecosystem rather than on target stocks alone. Extending existing practices to associated and dependent species as well as their habitats presents a challenge.

Precautionary approach aside, this chapter now asks whether there is conflict between the way the ecosystem approach is defined and promoted by fisheries instruments and NGOs. The ecosystem approach is supported in the LOSC in relation to the management of associated and dependent species.⁵⁰ The FAO Code of Conduct contains additional provisions calling on States to have measures that minimise waste and discards of non-target species and to determine impacts on associated or dependent species to improve gear selectivity. The FAO Code of Conduct also calls on States to assess the impacts of environmental factors on target stocks and species belonging to the same ecosystem and to also assess the relationship between populations in the ecosystem.⁵¹ The UNFSA includes provisions for the assessment of impacts of fishing, human activities and other environmental factors on target stocks and species in the same ecosystem as well other points raised in the FAO Code of Conduct.⁵² In addition, the FAO has provided technical guidelines for the application of the approach.⁵³ Unlike the precautionary approach, implementation of the ecosystem approach has been slow and this is attributed to how widely the concept is understood and the constraints faced by management bodies.

⁴⁹ Section 4 of Annex II, UNFSA.

⁵⁰ Article 61, LOSC. See also FAO, ‘The Ecosystem Approach to Fisheries,’ *FAO Technical Guidelines for Responsible Fisheries*, No. 4, Suppl. 2, Rome, 2003, 112pp, 73 – 82 for a list of relevant instruments and institutions supporting EAF.

⁵¹ Articles 7.2.2(g) and 7.2.3 FAO Code of Conduct.

⁵² Article 5(d), (e) and (f) WCPF Convention. See also Article 5(d) and (e) WCPF Convention.

⁵³ FAO, 2003, above n.50.

Of the NGOs based in the region, WWF has devoted considerable attention to developing a framework for ecosystem-based management. WWF posits that “our underlying principle [to promote sustainable fishing] is ecosystem-based management, which aims to achieve the sustainable exploitation of natural resources by balancing the social and economic needs of human communities with the maintenance of healthy ecosystems.”⁵⁴ On the face of it, ecosystem-based management appears to be an alternative form of the ecosystem approach found in international instruments. But on closer analysis, the two are virtually the same.

The FAO guidelines on the application of the ecosystem approach are practical and describe considerations for the implementation of the approach. The guidelines state that the ecosystem approach originated from the Stockholm Conference on the Human Environment and the LOSC and as a result the two main pillars are: (i) the elimination of overcapacity and overfishing, rebuilding of depleted stocks and protection of associated and dependent species; and (ii) the maintenance of ecosystem habitats, functional relations between components and productivity.⁵⁵ Further the principles of relevance in Ecosystem Approach to Fisheries (EAF) are: avoiding overfishing, ensuring reversibility and rebuilding, reducing by-catch, taking into account species interactions, promoting compatibility, applying the precautionary approach, improving human well being, allocating user rights, promoting sectoral integration, extending stakeholder participation, and maintaining ecosystem integrity.⁵⁶

On the other hand, the principles of ecosystem-based management proposed by WWF are summarised as: maintaining ecosystems, ensuring that human use and values of ecosystems are central to management, acknowledging the ecosystems are dynamic, promoting broad stakeholder participation, and that successful management is adaptive and based on scientific knowledge and monitoring.⁵⁷ Compared with the FAO principles, there are close similarities. However the FAO principles appear to be wider in scope because specific principles are enunciated.

That said, the key difference between the approaches lies in the procedures for implementation. The FAO guidelines describe planning requirements and ingredients for an EAF management plan as well as the requirements and process for implementation. WWF introduces planning by ecoregions of species, habitats and oceanographic features and calls for a determination of ecosystem values in habitats, species and uses. Ecoregions identified may be found in one jurisdiction or be spread over a number of jurisdictions. Implementation of the ecosystem-

⁵⁴ http://www.panda.org/about_wwf/what_we_do/marine/our_solutions/sustainable_fishing/reducing_impacts/improving_policy/index.cfm [accessed 26/02/08].

⁵⁵ FAO, above n.50, 74.

⁵⁶ FAO, above n.50, 83 – 88.

⁵⁷ Ward et al, above n.36.

based management approach, therefore, is more demanding and requires countries to cooperate with each other in management. This goes beyond the duty to cooperate in the LOSC because it potentially involves, among other tasks, joint mapping of ecoregions, assessment of ecosystem values of habitats, species and uses, the determination of hazards and risks, and agreement on management goals and reference points.

The ecosystem approach is promoted by Greenpeace in its principles for low impact ecologically responsible fisheries. Although there is no specific part relating to the approach, the principles included in the FAO guideline are embodied. Fisheries that threaten the biodiversity, productivity or characteristic structure and function of marine ecosystems should be addressed. The organisation also states that fisheries management generally concerns the management of fishers and their activities, not the management of ecosystems. In their view, attempts to supplement fisheries production must not include the culling of predator species or the fertilization of marine ecosystems.

In the final analysis both NGOs provide useful insight into the application of the approach. Although biased toward conservation, their guiding principles urge more integration and a holistic approach to management. WWF's ecoregion approach draws some attention and requires transboundary action. If applied in the WCPO, there would be a role for institutions including the WCPFC, the proposed South Pacific Regional Fisheries Management Organisation, and the International Sea Bed Authority.

NGO Roles and Responsibilities

A basic analysis shows that NGOs directly promote two pillars of sustainable development. Industry NGOs involved in fishing will advocate interests of their members and support sustainable catch levels that would not harm the economic viability of their operations. Although the focus of industry NGOs would be development and increased economic benefits, there would also be strong interest in long term sustainability. Environmental NGOs, on the other hand, are more concerned about the ecosystem and its importance in sustaining human life. Social and cultural aspects are addressed to a certain extent by industry and environmental NGOs but this is largely left for governments.

Broad roles aside, the role of NGOs in the implementation of international fisheries instruments is diverse and arguably goes beyond that envisaged by drafters of the FAO Code of Conduct. At an NGO and civil society workshop held in Fiji in 2007, participants comprised of environmental NGOs, outlined current

and future roles and challenges in improving their effectiveness.⁵⁸ Current roles include: developing materials on fisheries management and the plight of fish stocks, monitoring the public sector and calling for transparency in decision-making, engaging communities, and building capacity through meetings and workshops.

In addition, NGOs are in a position to contribute significantly because of their combined ability to work at all levels and on transboundary issues. Their ability to access funds and technical expertise is another strength that can complement limited resources of national governments. Working with NGOs in specific activities would be mutually beneficial for governments and regional organisations. Current and future NGO roles include:

- influencing the contents of new fisheries instruments to address existing governance gaps;
- monitoring and guiding the implementation of international principles and concepts;
- identifying inherent weaknesses and enhance roles of national governments and regional fisheries management organisations in fisheries governance;
- acting as a conduit for information dissemination between local communities and national governments;
- motivating local communities to promote sustainability by implementing sound practices;
- promoting responsible fishing among fishing communities and decision-making authorities; and
- encouraging the continual improvement of fisheries governance.

These are not minor but substantive roles that demonstrate the future level of influence of NGOs on fisheries governance. This chapter has elaborated on a number of these roles above and will only concentrate on the role of NGOs in influencing the development of new instruments and in local level initiatives.

NGOs have participated actively in international and regional fora on sustainable development and fisheries management. Their involvement in the development of the FAO Code of Conduct is noted. One observer comments that NGOs made “substantial and important written contributions ... on all articles in the Agreement.”⁵⁹ In the negotiations for the WCPF Convention, NGOs participated

⁵⁸ Cartwright, I. *Summary Record and Outcomes NGO and Civil Society Workshop on Oceanic Fisheries Management in the Western & Central Pacific Fisheries Convention Area*, Tanoa Plaza Hotel, Suva, Fiji, 24 – 25 April 2007, p. 19.

⁵⁹ Doulman, D. J. Structure and Process of the 1993 – 1995 United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, *FAO Fisheries Circular*, No. 898, FAO, Rome, 1995, 81p. Available at: <http://www.fao.org/docrep/V9929E/V9929E00.HTM> [accessed 22/1/2008].

through national delegations. As far as new instruments are concerned, NGOs are currently lobbying for an instrument for the protection of high seas biodiversity.

Environmental NGOs in the region have long raised concerns of the impacts of fishing activities on the biodiversity of the high seas.⁶⁰ An international coalition to conserve high seas biodiversity was established to primarily secure a moratorium on high seas bottom trawling and protect fragile and unique ecosystems of the deep seas.⁶¹ Accredited NGOs such as Greenpeace, Oceana, Birdlife International, and Friends of the Earth are part of the coalition. Greenpeace has challenged international law principles, particularly, the freedom of the high seas as an obstacle to the protection of high seas biodiversity.⁶² It argues that the freedom should be reversed. In their view the high seas should be viewed as marine reserves and nations have the burden of proving that they will not harm the ecosystem before being given access.⁶³ They posit that the longstanding freedom of the high seas should be replaced by the freedom for the seas where the ecosystem approach and the precautionary principle are considered fundamental to management. This proposal is akin, albeit narrower in scope, to that originally recommended by Ambassador Arvid Pardo in the common heritage of mankind concept.⁶⁴

It is only a matter of time before there is a new instrument addressing legal challenges in high seas fisheries governance. By adopting resolution 61/105, members of the United Nations General Assembly concur that there is a need for international, regional and national action.⁶⁵ The resolution is a testament to the commitment of NGOs in influencing change in existing practices. It also shows the importance of their role in highlighting governance gaps and weaknesses in long standing legal concepts.

⁶⁰ Gianni, M. & Simpson, W. *The Changing Nature of High Seas Fishing: How Flags of Convenience Provide Cover for Illegal, Unreported and Unregulated Fishing*, Australian Department of Agriculture, Fisheries and Forestry, International Transport Workers' Federation, and WWF International, 2005; Greenpeace, *Freedom for the Seas for Now and for the Future*, May 2005, 4pp; Breide, C. and Saunders, P. *Legal Challenges for the Conservation and Management of the High Seas and Areas of National Jurisdiction*, WWF International, Gland, Switzerland, 2005, 99pp.

⁶¹ See Deep Sea Conservation Coalition website, accessed 16/12/08. <http://www.savethehighseas.org/>

⁶² Greenpeace, 2005, above n.60.

⁶³ *Ibid.*

⁶⁴ See Baslar, K. *The Concept of Common Heritage of Mankind in International Law*, Martinus Nijhoff, 1998.; Birnie, P. W. and Boyle, A. E. *International Law and the Environment* (2edn). Oxford University Press, 2002, pp. 143-44; Joyner, C. C. 'Legal Implications of the Concept of the Common Heritage of Mankind' in *The International and Comparative Law Quarterly*, Vol. 35, No. 1, Jan., 1986, pp. 190-199.

⁶⁵ Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments. UN GA 61/105, 6 March 2007, see paragraphs 76 – 95.

On NGO relations with local communities, NGOs are vital in extending national fisheries awareness and capacity building to these communities. While NGO motives may be to establish programmes in accordance with their own campaign initiatives, the programmes are nevertheless useful in raising awareness of the ecosystem and sustainability. An example is WWF's work in Macuata, Fiji, to protect globally significant seascapes. The work has seen the completion of surveys of the world's third longest barrier reef, the Great Sea Reef, and empowerment of local communities to establish marine reserves and to carry out monitoring and management activities.⁶⁶

Taking all the above considerations into account, the level of participation of NGOs in fisheries governance at all levels is likely to increase over time. In recent international fisheries instruments such as the FAO Code of Conduct, NGO and stakeholder participation was considered vital. In time the international community is expected to provide greater recognition to particular NGOs that are capable of possessing international rights and duties. By being able to exercise international rights and duties, NGOs would be conferred international legal personality.⁶⁷

Concluding Remarks

Although NGOs generally have been viewed with scepticism by Pacific Island governments, this view is gradually changing. Change is influenced primarily by international trends embracing wide stakeholder participation in fisheries governance, and current activities of NGOs in the region. The initial sentiment of distrust toward NGOs diminishes as cooperation and partnerships emerge. But will there be a symbiotic relationship where all stakeholders mutually benefit? The answer depends upon NGO approaches and the policies of sovereign nations in the region.

In assessing whether NGOs should be considered partners or adversaries in the implementation of fisheries instruments, it is clear that NGOs have a vital role. NGOs have participated in the development of international instruments and helped to legitimise such instruments. National policies are also legitimised, to a certain degree, when used by NGOs in local awareness, capacity building and management initiatives. While some NGOs have formal partnerships with

⁶⁶ Heaps, L. *Setting Priorities for Marine Conservation in the Fiji Islands Marine Ecoregion*, WWF SPP, Suva, Fiji, 2005.; Heaps, L. *Fiji's Great Sea Reef: The Hidden Gem of the South Pacific*, WWF SPP, Suva, Fiji, 2005; Grieve & Short, 2007, *Op cit.* p25 – 29.

⁶⁷ See generally Klabbbers, J. *An Introduction to International Institutional Law*, Cambridge University Press, 2002; Edeson, W. 'Article XIV of the FAO Constitution, International Legal Personality and the Indian Ocean Tuna Commission' in Ndiaye & Wolfrum (eds), *Law of the Sea, Environmental Law and Settlement of Disputes*, Brill, 2007, pp. 735 – 750.

governments in the region, others may be considered informal or “loose” partners. The activities of the latter NGOs may be quietly supported by government(s) as formal agreements are not consistent with policy.

Current national policies on engagement with NGOs are believed to be based on the potential for national contribution and the characteristics of an NGO. Obviously an NGO that challenges or criticises government would not normally be considered as a partner but an adversary. NGOs are not without flaws. Whilst NGOs may not represent significant proportions of the population, in most cases they are supported by individuals outside the region and promote foreign ideas that may not be suitable in the local context. NGOs have also been challenged for lack of transparency and for failing to accommodate regional and local realities. Further, NGOs can only be held accountable by their respective constituents, supporters and donors.

In spite of this, the role of NGOs in implementation is likely to broaden. The limits on the role of NGOs was not provided by the drafters of the FAO Code of Conduct and other instruments and is largely left for States to determine in practice. NGOs are independent enough to highlight weaknesses in regional fisheries management organisations and national administrations and to offer suggestions for change. Their role in monitoring and facilitating compatibility of measures across national jurisdictions and international areas is essential. However, it is important that the involvement of traditional interest groups not be undervalued as more NGOs participate in fisheries governance. In the future, greater recognition will be accorded to NGOs and a select few capable of possessing and exercising international rights and duties would be conferred international legal personality. NGOs working at the national level need to continually reflect on their approach and the nature of their activities. If their activities are compatible and sensitive to the Pacific Islands context, than they are likely to be considered by Pacific Island governments to be real partners rather than mere “partners of convenience.”

Bibliography

Baslar, K. *The Concept of Common Heritage of Mankind in International Law*, Martinus Nijhoff, 1998.

Betsill, M. M. and Corell, E. 'NGO Influence in International Environmental Negotiations: A Framework for Analysis' in *Global Environmental Politics*, Vol. 1, No. 4, 2001, pp. 65-85.

Birnie, P. W. & Boyle, A. E. *International Law and the Environment* (2edn), Oxford University Press, 2002.

Breide, C. and Saunders, P. *Legal Challenges for the Conservation and Management of the High Seas and Areas of National Jurisdiction*, WWF International, Gland, Switzerland, 2005.

Cartwright, I. *Summary Record and Outcomes NGO and Civil Society Workshop on Oceanic Fisheries Management in the Western & Central Pacific Fisheries Convention Area*, Tanoa Plaza Hotel, Suva, Fiji, 24 – 25 April 2007.

Clark, A. M. 'Non-Governmental Organizations and their Influence on International Society' in *Journal of International Affairs*, Winter 1995, Vol. 48, No. 2, 1995, pp. 507-522.

Charlton, R. and May, R. 'NGOs, Politics, Projects and Probity: A Policy Implementation Perspective' in *Third World Quarterly*, Vol. 16, No. 2, 1995, pp. 237-255.

Doulman, D. J. Structure and Process of the 1993 – 1995 United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, *FAO Fisheries Circular*, No. 898, FAO, Rome, 1995.

FAO, The Ecosystem Approach to Fisheries. *FAO Technical Guidelines for Responsible Fisheries*, No. 4, Suppl. 2, FAO, Rome, 2003.

Gianni, M. & Simpson, W. *The Changing Nature of High Seas Fishing: How Flags of Convenience Provide Cover for Illegal, Unreported and Unregulated Fishing*, Australian Department of Agriculture, Fisheries and Forestry, International Transport Workers' Federation, and WWF International, 2005.

Greenpeace International, *Principles for Ecologically Responsible Low-Impact Fisheries*, May 1998.

Hadenius, A & Ugglå, F. 'Making Civil Society Work, Promoting Democratic Development: What Can States and Donors Do?' in *World Development*, Vol. 24, No. 10, 1996, pp. 1621 – 39.

Hernes, K-H. and Mikalsen, K. H. 'From Protest to Participation? Environmental Groups and the Management of Marine Fisheries' in *Mobilization: An International Journal*, Vol. 7, No. 1, 2002, pp. 15 – 28.

Joyner, C. C. 'Legal Implications of the Concept of the Common Heritage of Mankind' in *The International and Comparative Law Quarterly*, Vol. 35, No. 1, Jan., 1986, pp. 190-199.

Klabbers, J. *An Introduction to International Institutional Law*, Cambridge University Press, 2002.

Lack, M. and Sant, G. *Confronting Shark Conservation Head On!* TRAFFIC International, 2006.

Mikalsen, K. H.; Hernes, H-K. and Jentoft, S. 'Leaning on User-Groups: The Role of Civil Society in Fisheries Governance' in *Marine Policy*, Vol. 31, 2007, pp. 201 – 209.

Ward, T.; Tarte, D.; Hegerl, E. and Short, K. *Policy Proposals and Operational Guidance for Ecosystem-based Management of Marine Capture Fisheries*, WWF Australia, 2002.

Warkentin, C. *Reshaping World Politics. NGOs, the Internet, and Global Civil Society*, Rowman & Littlefield Publishers, Lanham, Maryland, 2001.

Weyler, R. *Greenpeace: The Inside Story How a Group of Ecologists, Journalists and Visionaries Changed our World*, Raincoat Books, 2005.

Willock, A. & Lack, M. *Following the Leader: Learning from Experience and Best Practice in Regional Fisheries Management Organisations*, WWF International and TRAFFIC International, 2006.

Part Two

Impacts of Regional Trends in the Western and Central Pacific Region

8. Status of Tuna Stocks in the Western and Central Pacific Ocean and Scientific Challenges

Shelton Harley and John Hampton

Introduction

Tuna fishing in the Pacific Islands region has a rich history. For centuries, tuna have provided an important source of food for Pacific Island peoples and the traditional fishing techniques and equipment involved are part of their cultural heritage. Today, tuna are also an important source of income and employment for many Pacific Island countries and territories. For many, the tuna resources within their 200 mile exclusive economic zones (EEZs) represent their only significant renewable resource and their best opportunity for economic development.

This chapter is divided into two main parts. In the first part we report on the fisheries in the Western and Central Pacific Ocean (WCPO) and the current health of the stocks on which these fisheries operate. In the second part we will discuss some of the science-related issues for the WCPO tuna fisheries that require policy or legal development.

We include several recommendations for the science process in the Western and Central Pacific Fisheries Commission (WCPFC). While these recommendations are principally directed at the WCPFC, it is likely that they are relevant to other tuna regional fisheries management organisations (RFMOs) and to the interpretation and further development of international fishery instruments. A history of the assessment and management of WCPO tuna stocks is provided elsewhere¹ and is not repeated in detail here.

Fisheries in the WCPO

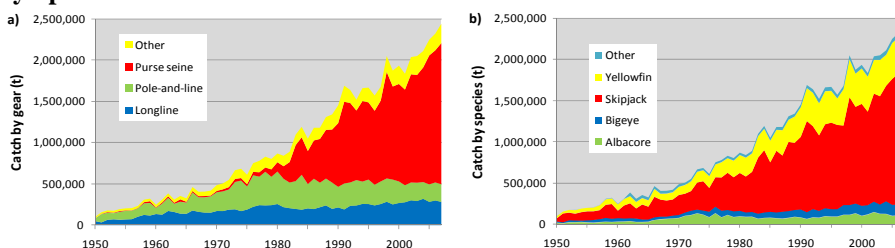
The four principal species fished in the WCPO are skipjack, yellowfin, bigeye, and albacore tuna and the predominant fishing methods are longline and purse seine, with lesser catches taken by pole and line and other gears. The fisheries for these species in the WCPO are by far the largest of any in the world's oceans. Provisional catch estimates for 2007 indicate that over 80% of the Pacific tuna

¹ Langley, A., Wright, A., Hurry, G., Hampton, J., Aqorau, T. and Rodwell, L. 'Slow Steps Towards Management of the World's Largest Tuna Fishery' in *Marine Policy* Vol. 33, pp. 271-279, 2008.

catch and 55% of the world tuna catch is taken from the waters of the WCPO.² The landed value of the catch in 2007 was estimated at USD 3.9 billion³ and the catches and landed value of the main species, skipjack, have increased since that time.⁴

Annual total catches of the four main tuna species in the WCPO increased steadily throughout the history of the fishery (Figure 1). Increases in total tuna catch have accelerated in the past 6 years, primarily due to increases in purse-seine fishery catches (Figure 1). The provisional total WCPO tuna catch for 2007 was estimated at 2,396,815 metric tons (mt), clearly the highest annual catch recorded, and more than 120,000 mt higher than the previous record in 2006 (2,273,322 mt). During 2007, the purse seine fishery accounted for an estimated 1,739,859 mt (73% of the total catch, and a record for this fishery), with pole-and-line taking an estimated 214,935 mt (9%), the longline fishery an estimated 232,388 mt (10%), and the remainder (8%) taken by troll gear and a variety of artisanal gears, mostly in eastern Indonesia and the Philippines.

Figure 1: Total Catch of Tuna Fisheries in the WCPO a) by Gear Type and b) by Species



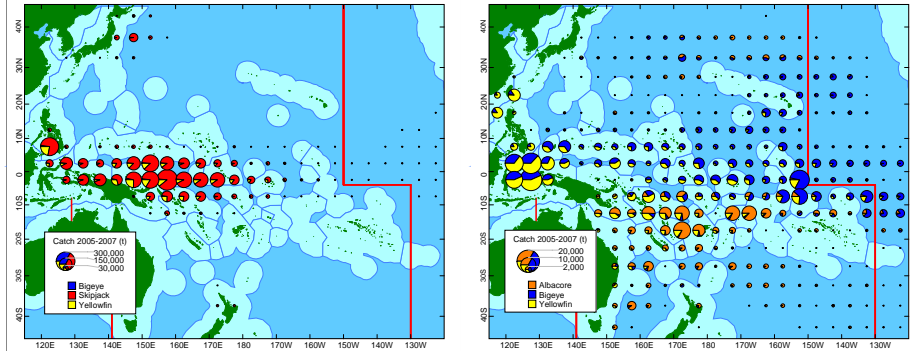
While tuna are taken throughout much of the WCPO, most of the purse seine catch occurs between 10°N and 10°S, and most of the longline catch between 10°N and 20°S (Figure 2). Furthermore, around 80% of the catch is taken within the waters of coastal states in the convention area, and around 50% (1,200,000 mt) is taken from the waters of Pacific Islands Forum Fisheries Agency (FFA) member countries.

² Williams, P. and Terawasi, P. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2007*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/GN WP-1.

³ Langley, Wright, Hurry, Hampton, Aqorau and Rodwell, 2008, above n 1.

⁴ William and Terawasi, 2008, above n 2.

Figure 2: Distribution of Catch by a) Purse Seine and b) Longline, 2005-2007



Note: The line at the right hand side of each plot indicates the eastern boundary of the Convention Area of the Western and Central Pacific Fisheries Commission.

Status of Tuna Stocks in the WCPO

Under the interim scientific arrangements currently operating within the WCPFC, the Oceanic Fisheries Programme of the Secretariat for the Pacific Community (SPC-OFP) is contracted to undertake assessments for the four main tuna stocks: bigeye, yellowfin, and skipjack tuna, and the South Pacific stock of albacore tuna. Below we report the conclusions of the assessments for bigeye, skipjack, and South Pacific albacore tuna undertaken in 2008, and for the yellowfin tuna assessment undertaken in 2007 (stock assessments for all species are not undertaken each year).

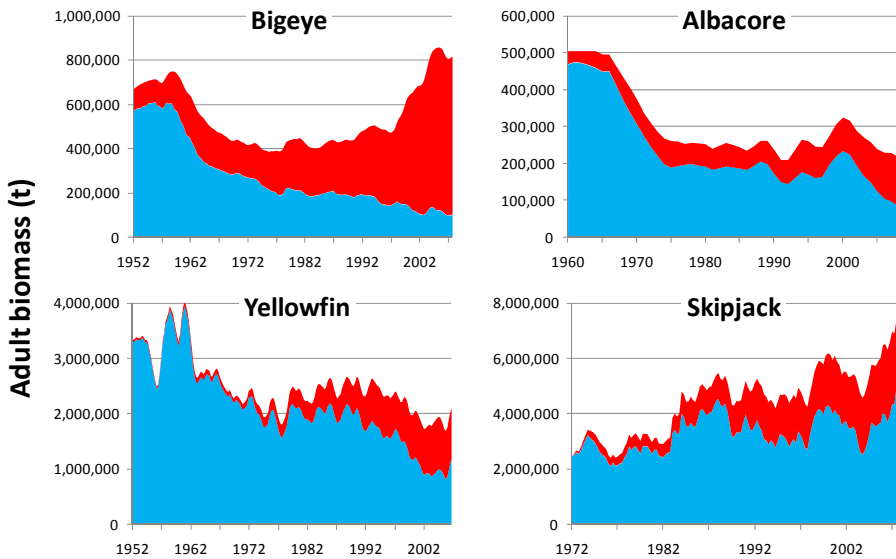
Later we will discuss the need for the WCPFC to provide guidance on reference points for evaluating stock status against, but in the absence of such guidance, the WCPFC Scientific Committee (WCPFC SC) has typically summarised the condition of these stocks in relation to three interim reference points: the level of fishing mortality that should result in the maximum sustainable yield (F_{MSY}), the biomass that is capable of supporting the maximum sustainable yield (B_{MSY}), and the level of biomass predicted to exist today if fishing had not occurred ($B_{CURR(F=0)}$). The first two are very common MSY-related reference points based on equilibrium (e.g. static or ‘on-average’) conditions enshrined in most international fishery instruments and form the basis of the so-called “Kobe plots”⁵ provided below, while the third is based on more modern fishery science views of fish population dynamics and the rather non-equilibrium patterns that we observe.

⁵ The name ‘Kobe plot’ came from discussions at the first joint tuna RFMO meeting held in Kobe, Japan in January 2007 that considered, amongst other matters, some generic ways that researchers in all the world’s oceans could use to display the results of tuna stock assessments.

Bigeye Tuna

Currently the biomass of adult bigeye tuna in the WCPO is predicted to be at 26% of the level that would be present if fishing was not occurring has been declining at a steady rate for the past 30 years (Figure 3a). Based on the point estimates (e.g. a single number that does not consider any uncertainty) from the assessments, current levels of fishing mortality are much higher than F_{MSY} , therefore the rate of fishing is not sustainable, but the actual level of biomass is slightly above B_{MSY} so theoretically the stock is still capable of supporting the MSY⁶ (Figure 4a). Taking into account uncertainty within the stock assessment in our estimates of current status and the correctness of our assessment model (versus other models with equally plausible assumptions), there is a high probability that the stock could be less than B_{MSY} and we are essentially certain that fishing mortality is too high. If current levels of fishing mortality continue, the biomass of adult bigeye is predicted to decline well below the level that can support the MSY.⁷

Figure 3: Exploited (light grey) Adult Biomass and Biomass Removed by Fishing (dark grey)



⁶ Langley, A., Hampton, J., Kleiber, P. and Hoyle S. *Stock Assessment of Bigeye Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA-WP-1.

⁷ Hampton, J. and Harley S. *Predicted Impact of Potential Management Options on Stock Status and Catches of Bigeye, Skipjack and Yellowfin Tunas in the Western and Central Pacific Ocean*. Fourth regular session of the WCPFC Technical and Compliance Committee, 2–7 October 2008, Pohnpei, Federated States of Micronesia. WCPFC-TCC4-2008/ 14 Suppl.

These results led to the following recommendation from the Fourth session of the WCPFC SC:

The SC recommended a minimum 30% reduction in fishing mortality from the average levels for 2003–2006 with the goal of returning the fishing mortality rate to F_{MSY} The SC acknowledged that projections indicate that the bigeye tuna stock may become overfished (biomass < B_{MSY} , spawning biomass < SB_{MSY}) in the future with regard to both total biomass and spawning biomass even with a 30% reduction in fishing mortality. Therefore, it may be necessary to recommend additional reductions in fishing mortality in the future if assessments indicate that fishing mortality is greater than F_{MSY} .⁸

Yellowfin Tuna

Currently the biomass of yellowfin tuna in the WCPO is predicted to be at 51% of the level that would be present if fishing was not occurring and has declined rapidly during the late 1990s (Figure 3b). Based on the point estimates from the assessments, current levels of fishing mortality are close to F_{MSY} , and the actual level of biomass is slightly above B_{MSY} ⁹ (Figure 4b). If you take into account uncertainty within the stock assessment in our estimates of current status and the correctness of our assessment model (versus other models with equally plausible assumptions), there is a significant probability that the stock could be less than B_{MSY} and that fishing mortality is too high. If current levels of fishing mortality continue, the biomass of adult yellowfin is predicted to remain near the level that can support the MSY.¹⁰

These results led to the following recommendation from the Third session of the WCPFC SC:

The WCPO yellowfin tuna fishery can be considered to be fully exploited. Both the 2006 and 2007 assessments indicate that there is a high probability that overfishing is occurring (73% for the base case 2006 assessment and 47% for the base case 2007 assessment). In order to reduce the likelihood of overfishing, and if the Commission wishes to maintain average biomass

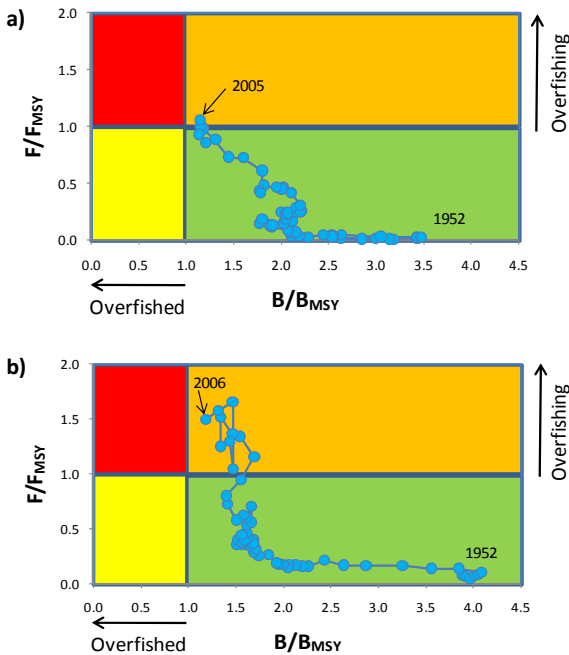
⁸ WCPFC, *The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Scientific Committee Third Regular Session, 13-24 August 2007, Honolulu, HI, U.S.A*

⁹ Langley, A., Hampton, J., Kleiber, P. and Hoyle S. *Stock Assessment of Yellowfin Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*. Third regular session of the WCPFC Scientific Committee, 13-24 August 2007, Honolulu, United States of America. WCPFC-SC3-2007/SA-WP-1.

¹⁰ Hampton and Harley, 2008, above n 7.

at levels greater than 5% above B_{MSY} , reductions in the fishing mortality rate would be required.¹¹

Figure 4: Temporal Trends in Annual Stock Status of a) Yellowfin Tuna and b) Bigeye Tuna in the WCPO relative to B_{MSY} (x-axis) and F_{MSY} (y-axis) reference points.



Note: Values of relative fishing mortality above the horizontal line represent overfishing; values of biomass to the left of the vertical line represent an overfished stock status.

South Pacific Albacore Tuna

Currently the biomass of spawning age albacore tuna in the South Pacific Ocean is estimated to be at 50% of the level that would be present if fishing was not occurring and biomass has declined rapidly during the last ten years (Figure 3c). Though not presented here, current levels of fishing mortality are less than F_{MSY} , and spawning biomass is above SB_{MSY} .¹² There is a concern about reductions in

¹¹ WCPFC, 2007, above n 8.

¹² Hoyle, S., Langley, A. and Hampton, J. *Stock Assessment of Albacore Tuna in the South Pacific Ocean*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA-WP-8.

the biomass of very large and old albacore which are targeted by the longline fisheries operating within the EEZ's of South Pacific countries. Current catches are thought to be sustainable.

These results led to the following recommendation from the Fourth session of the WCPFC SC:

The current assessment indicates lower levels of stock size and maximum sustainable yield which appear to be more realistic than previous assessments. There is uncertainty regarding the sustainability of the south Pacific albacore stock and the SC recommended that catches of south Pacific albacore remain at current levels considering the current rates of fishing mortality on adult albacore.¹³

Skipjack Tuna

Currently the biomass of skipjack tuna in the WCPO is predicted to be at 66% of the level that would be present if fishing was not occurring and is estimated to have been increasing over the period of the fishery due to above average recruitment (Figure 3d). Though not presented here, current levels of fishing mortality are well below F_{MSY} , and biomass is well above B_{MSY} .¹⁴

These results led to the following recommendation from the Fourth session of the WCPFC SC:

The SC acknowledged that skipjack catches in 2007 increased to a historical high of ~1.7 million mt. The SC noted the increasing trend in estimated recruitment throughout the entire time series of the fishery. This trend may reflect skipjack's high productivity relative to other tuna species and its position in the ecosystem. These high recent catches are considered to be sustainable unless recruitment falls persistently below the long-term average. However, any increases in purse-seine catches of skipjack may result in a corresponding increase in fishing mortality for bigeye and yellowfin tunas.¹⁵

¹³ WCPFC. *The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Scientific Committee Forth Regular Session, 11-22 August 2008, Port Moresby, Papua New Guinea.*

¹⁴ Langley, A. and Hampton, J. *Stock Assessment of Skipjack Tuna in the Western and Central Pacific Ocean.* Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA-WP-4.

¹⁵ WCPFC, 2008, above n 13.

Policy and Legal Needs for the WCPFC Science Process

There are several areas where policy development and/or legal work could help improve the scientific processes within the WCPFC. Here we focus our discussion under two general themes: 1) impediments to undertaking the best possible stock assessments; and 2) challenges in providing the necessary scientific advice to the WCPFC. Within these 2 themes we touch on several important issues.

Impediments to Providing the Best Possible Stock Assessments

The most important inputs for successful stock assessments are accurate data on fish catches and fishing activities and good understanding of the biology of the fish. Currently there are impediments relating to both of these.

Data Available for Stock Assessments

In 2005 the WCPFC agreed to standards for “Scientific data to be provided to the Commission.”¹⁶ These standards include the data that are required to undertake good assessments of the tuna stocks in the WCPO. The fundamental requirement under these standards is the provision of estimates of total catch and effort. There are currently two problems relating to this: 1) the late provision of data; and 2) the difficulties faced by some of the important fishing nations/coastal States in providing this information.

Analyses prepared for the Fourth Session of the WCPFC SC¹⁷ indicated that there is a substantial mismatch between the data that are required to be provided to the WCPFC and what has been actually provided and available for use in scientific analyses. Of particular concern was the lack of data provided by some of the major longline fishing fleets. Typically these data are not available until 18 months after the end of the calendar year, and the delay in receiving them leads to unnecessary uncertainty in stock assessment estimates of current conditions and future trends. A similar issue is that there are some developing States that have major fisheries, but limited infrastructure to provide reliable fisheries statistics. Currently catches in these fisheries are a major source of uncertainty in the stock assessments for bigeye and yellowfin tuna.¹⁸ This is of particular concern in Indonesian and the Philippines, where some efforts have been made to address such problems. However, further work is required in both these regions and in other countries that are not currently engaged in the WCPFC process (e.g. Vietnam). There is clearly a

¹⁶ WCPFC, available from www.wcpfc.int under Guidelines, Procedures, and Regulations, updated in 2007.

¹⁷ SPC-OFP, Scientific Data Available to the Western and Central Pacific Fisheries Commission. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/ST-IP-2.

¹⁸ Langley, Hampton, Kleiber, and Hoyle, 2008, above n 6; Langley, Hampton, Kleiber and Hoyle, 2007, above n 9.

need to consider the responsibility of those States operating fisheries or having fisheries operating in their waters, with the broader interest of all WCPFC members in having accurate data available for stock assessments.

Another data-related issue is due to our strong reliance on catch and effort data (particularly from longline fisheries) to infer trends in abundance in tuna populations. Assessments for non-pelagic species often include data from fishery independent surveys of the fish stocks (e.g. trawl or acoustic surveys) which are critical to obtaining reliable estimates of stock status. Unfortunately these types of monitoring tools are not appropriate for these highly mobile pelagic tuna species. While the WCPFC standards include the requirement to provide operational level fishing activities, e.g. detailed data on individual longline sets, there is currently an out-clause exercised by most of the major longline fishing nations.

Operational level catch and effort data (e.g. individual sets by longliners and purse seiners, and individual days fished by pole-and-line vessels and trollers) shall be provided to the Commission, in accordance with the standards adopted by Commission at its Second Regular Session. These are listed in Annex 1.

It is recognized that certain members and cooperating non-members of the Commission may be subject to domestic legal constraints, such that they may not be able to provide operational data to the Commission until such constraints are overcome. Until such constraints are overcome, aggregated catch and effort data and size composition data, ... shall be provided.¹⁹

Operational catch and effort data include information such as a unique identifier of individual fishing vessels, time of day of the set, configuration of the longline (e.g. hooks per basket which is a proxy for the depth fished by the longline), and target species. All these variables have been shown, when they are available, to strongly affect the catches of the key tuna species. In the absence of operational-level data, we must rely on data that has been aggregated by 5x5 degree area and month and none of the important variables are available.²⁰ Our ability to accurately estimate trends in abundance is hampered by not having access to these comprehensive operational-level data. Frustratingly it is not that the data do not exist or can never be released, as when these same vessels fish within the waters of Pacific Island countries, the coastal States obtain the detailed logsheet data and provide them to the SPC-OFP. Also, several WCPFC members are in fact providing operational level data to the Commission, indicating that problems relating to domestic data confidentiality restrictions can be solved.

¹⁹ WCPFC, above n 16.

²⁰ It is possible to get a summary of some of the variables, e.g. average hooks per basket, but clearly this is less useful than having the data and a set level.

These data issues are a global problem for all the world's tuna stock assessments. The policy/legal issue to be resolved is to what extent members of the WCPFC are required to modify their domestic legislation to meet the requirements of the WCPFC? And under what time frames? The phrase "until such constraints are overcome" implies that there is an expectation that members will take steps to overcome these constraints, but frustratingly little progress has been evident on this issue to date and the science continues to suffer.

Research Funding to Support Stock Assessments

Whilst it is recognised that members of the WCPFC do fund their own research into tuna stocks, the actual level of funding by the WCPFC is very low relative to the value of the fishery, e.g. the 2008 budget for scientific activities was USD 665k for a fishery with a value of more than USD 3.9 billion, or 0.02%. In contrast, for the Marine Stewardship Council (MSC) certified fishery for New Zealand hoki where landings currently are worth NZD 141 million,²¹ the industry spends NZD 4.2 million on various surveys to monitor trends in the populations. This spending represents around 3% of the value of the catch. This low proportion of research expenditure within the WCPFC was noted at the Fourth Session of the WCPFC SC, unfortunately in the face of requests to **reduce** the budget.²²

As mentioned previously, trawl surveys and other more traditional monitoring tools are not feasible for tuna, but large-scale tagging programmes have the ability to provide important information on many important aspects of population dynamics including: movement rates, interactions between fisheries, and levels of fishing mortality.

Previous large-scale tagging programmes were implemented by SPC-OFP in 1978-82 (funded by a number of Pacific regional donor agencies) and 1989-92 (funded by the European Community). A third programme is currently underway, funded by a number of donors including development or fisheries agencies in New Zealand, Korea and the European Community. Given the relatively short life span of these tuna species, ideally the large-scale programmes would be undertaken more frequently or, preferably, would undertake lower levels of tagging every year. The total cost of the current programme is USD 10 million so if funding for such work was considered an annual cost of the fishery, it would be around USD 1 million per year. This figure represents 43 cents per mt of fish taken in 2007.

Relying on intermittent, large donations from international aid agencies is clearly not the appropriate model for funding the critical monitoring tool of the world's

²¹ <http://www.seafood.co.nz/hoki>

²² Paragraph 309 of the WCPFC 4 Summary Record available at www.wcpfc.int

largest and most valuable tuna fishery. New Zealand, one of the largest donors of the current programme, noted at the Fourth session of the WCPFC SC:

while it was pleased to be able to provide significant funding for Phase II of the PTPP, it would like to see WCPFC incorporate the ability to resource such critical research into its core programme and budget, as well as explore ways that costs could be internalized within the fishing industry exploiting the resources.²³

Scientific Advice to the WCPFC

Two of the key functions of the WCPFC SC are described in Article 12 (2)(b) and (g) of the Western and Central Pacific Fisheries Convention (WCPFC Convention) and relate to reviewing stock assessments and providing advice to the WCPFC on these and other matters concerning conservation and management of target and non-target stocks. The challenge for the WCPFC SC is to provide advice to the WCPFC in terms that they understand and ensure that the advice relates to concepts that are meaningful. The only way for this to happen is through the WCPFC providing advice to the WCPFC SC on these matters. So far there has been insufficient dialogue between the two groups on at least two key issues that we discuss below; namely, the use of reference points, and the development of a working definition for provisions contained within the Conservation and Management Measures (CMMs) adopted by the WCPFC.

Lack of Agreed Management Objectives, Target and Limit Reference Points

A stock assessment in itself only provides estimates of the current levels of biomass and rates of fishing mortality and these quantities alone are unlikely to be useful to the WCPFC. One way to report the results from stock assessments to managers is by comparing the estimates of model output against reference points (i.e. pre-defined levels of, for example, biomass and fishing mortality). While there is some guidance on this issue provided by the WCPFC Convention, there are currently no agreed reference points and currently the WCPFC SC is providing advice against the three interim reference points discussed above.

Annex II of the United Nations Fish Stocks Agreement (UNFSA)²⁴ provides some guidelines for reference points for tuna-like stocks and notes that two types of reference points are required: 1) conservation or limit reference points which are

²³ Paragraph 102 of the WCPFC 4 Summary Record available at www.wcpfc.int

²⁴ United Nations, Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Signed 4 December 1995, entered into force 11 December 2001, reprinted in *International Legal Materials*, Vol. 34, 1995.

intended to constrain harvesting within safe biological limits within which the stocks can produce maximum sustainable yield; and 2) target reference points which are intended to meet management objectives. Annex II goes on to indicate that fishery management strategies shall ensure that the risk of exceeding limit reference points is very low and that target reference points are not to be exceeded on average.

Article 5(b) of the WCPF Convention is aimed at ensuring that measures (which can be interpreted as the fishery management strategies described in Annex II) are designed to restore or maintain stocks at levels capable of producing MSY. This could be read to suggest that B_{MSY} is a target reference point, however 5(b) then proceeds to list many qualifying factors that can be used to vary the level including the special requirements of developing States, fishing patterns, and the interdependence of stocks. So clearly the situation is far more complicated and there is a need for the WCPFC to determine if these factors do, in fact, modify the target level, and if yes, in what direction and by how much.

There is no specific advice on potential levels of limit reference points, but clearly if the guidelines in Annex II are considered, the WCPFC SC has the key role to play in recommending limit reference points to the WCPFC. For WCPO stocks, there is currently no history of depletion to low levels that would help inform the development of limit reference points and its work is likely to be based on data from other stocks of the same species in other oceans or other fish species.^{25,26} Rather than relying on the equilibrium approaches to fish population dynamics, this work should recognise and build on current thinking, regarding the variability in abundance in exploited fish populations.^{27,28}

So there are two streams of work relating to reference points within the WCPFC, one for the WCPFC in terms of developing target reference points based on Article 5(b), and a second for the WCPFC SC relating to the developing stock-specific limit reference points for the consideration of the WCPFC. Both pieces of work should allow the WCPFC SC to provide advice that is more meaningful to the WCPFC.

²⁵ Hutchings, J. A. 'Collapse and Recovery of Marine Fishes' in *Nature*, No. 406, 2000, pp. 882-885.

²⁶ Myers, R. A., Bowen, K. G. and Barrowman, N. J. 'The Maximum Reproductive Rate of Fish at Low Population Sizes' in *Canadian Journal of Fisheries and Aquatic Sciences*, No. 56, 1999, pp. 2404-2419.

²⁷ Anderson, C. N. K., Hsieh, C., Sandin, S. A., Hewitt, R., Hollowed, A., Beddington, J., May, R. M. and Sugihara, G. 'Why Fishing Magnifies Fluctuations in Fish Abundance' in *Nature*, Vol. 452, 2008, pp. 835-839.

²⁸ Minto, C., Myers, R. A. and Blanchard, W. 'Survival Variability and Population Density in Fish Populations' in *Nature*, No. 452, 2008, pp. 344-347.

Evaluating Elements of Conservation and Management Measures

A key task of the WCPFC SC is to evaluate the conservation benefit of any CMMs adopted by the WCPFC. To date it has adopted two measures intended to reduce the risk of further increases in fishing mortality on bigeye and yellowfin tuna (CMM2005-01 and CMM2006-01²⁹). To evaluate the conservation benefit of these measures it is necessary to quantify the various provisions of the CMM. Considering CMM2005-01, there are some provisions that are very straight forward and can be converted into levels of purse seine fishing effort and longline catches that can be evaluated in a modelling framework:

8. CCMs shall take necessary measures to ensure that purse seine effort levels do not exceed either 2004 levels, or the average of 2001 to 2004 levels, in waters under their national jurisdiction, beginning in 2006.

17. The catch of bigeye for each CCM for the next 3 years shall not exceed the average annual bigeye catch for the years 2001-2004 or the year 2004 (with a footnote for the USA and China).³⁰

Conversely there are other provisions that are not as easily interpreted:

[Footnote 1] Current level of fishing effort shall include fishing rights authorized under existing regional or bilateral fisheries partnership arrangements or agreements, provided these are registered with the Commission, and provided that the number of licences authorized under such arrangements does not increase. CCMs will register their bilateral agreements or arrangements with the Commission in advance of the Third Session of the Commission in 2006.

6. Nothing in this decision shall prejudice the legitimate rights and obligations of those small island state Members and participating territories in the Convention Area seeking to develop their own domestic fisheries.³¹

In terms of footnote 1 from CMM2005-01, the definition of ‘current’ effort levels includes latent fishing effort that is not actually being exercised. Insufficient details are provided to determine the levels of latent effort allowed for.³² Similarly, that same report (Table 10) shows that fishing effort in the waters under

²⁹ WCPFC, available from www.wcpfc.int under Conservation and Management Measures and Resolutions.

³⁰ WCPFC, above n 31.

³¹ WCPFC, above n 31.

³² WCPFC, *Review of CCM's Implementation of, and Compliance With, Conservation and Management Measures*. Fourth regular session of the WCPFC Technical and Compliance Committee, 2–7 October 2008, Pohnpei, Federated States of Micronesia. WCPFC-TCC4-2008/10 (Table 6).

the jurisdiction of the Parties to the Nauru Agreement (PNA) members increased about 11% from that 'allowed for' under CMM2005-01³³. However, it is recognised that the paragraph 6 of CMM2005-01 and footnote 1 (provided above) have not been taken into consideration. Paragraph 6 is clearly an important area where policy and/or legal interpretations are required.

It is difficult for the WCPFC SC to undertake meaningful evaluations of the potential conservation benefits of any CMM, if they contain provisions that allow for unspecified increases in fishing effort. Consequently, for the WCPFC to get meaningful advice from the WCPFC SC there is a need to identify the objectives of any CMM and ensure that definitions/supporting information is available to allow quantification of the important provisions. Also, this type of work is critical for the development of CMMs to give the WCPFC more certainty regarding what limits are being imposed through the various provisions.

Summary and Recommendations

The waters of the WCPO are home to the largest tuna fisheries in the world. Whilst the stocks are generally in good health, with biomass levels at or above those capable of producing the MSY, current levels of fishing mortality for bigeye tuna are well above commonly used limit reference points and approaching these levels for yellowfin tuna. Furthermore catches have been increasing rapidly in recent years and are at the highest levels observed for most species. With the exception of skipjack tuna, biomass levels are at or close to historical lows.

In this chapter we have touched on several areas related to the provision of scientific advice to the WCPFC that could benefit from policy and/or legal developments. We note that while we raise these issues specifically in the context of WCPFC, it is likely that they are relevant to other tuna RFMOs and to the interpretation and further development of international fishery instruments. We make the following recommendations to the WCPFC in relation to data provision, funding of critical monitoring activities, and improving the relevance of the advice from the WCPFC SC to the WCPFC:

1. develop processes to ensure that data are provided to the WCPFC, both the types of data and the timeliness of its provision, in line with the existing requirements;
2. develop timelines for members to make the necessary amendments to their domestic legislation to implement the existing requirements to provide operational level catch and effort data;

³³ WCPFC, 2008, above n 32.

3. develop a framework for funding the large-scale conventional tagging programmes that need to be undertaken at regular intervals to monitor trends in abundance and fishing pressure on the stocks;
4. begin discussions on management objectives within the WCPFC and its subsidiary bodies to assist in the development of limit reference points, target reference points and associated decision rules, to give effect to Article 5(b) of the WCPF Convention; and
5. develop working definitions for the provisions within CMMs to allow the conservation benefits of the measures to be evaluated.

Bibliography

Anderson, C. N. K., Hsieh, C., Sandin, S. A., Hewitt, R., Hollowed, A., Beddington, J., May, R. M. and Sugihara, G. 'Why Fishing Magnifies Fluctuations in Fish Abundance' in *Nature*, Vol. 452, 2008, pp. 835-839.

Hampton, J. and Harley S. *Predicted Impact of Potential Management Options on Stock Status and Catches of Bigeye, Skipjack and Yellowfin Tunas in the Western and Central Pacific Ocean*. Fourth regular session of the WCPFC Technical and Compliance Committee, 2–7 October 2008, Pohnpei, Federated States of Micronesia. WCPFC-TCC4-2008/ 14 Suppl. www.wcpfc.int

Hoyle, S., Langley, A. and Hampton, J. *Stock Assessment of Albacore Tuna in the South Pacific Ocean*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA-WP-8. www.wcpfc.int

Hutchings, J. A. 'Collapse and Recovery of Marine Fishes' in *Nature*, No. 406, 2000, pp. 882-885.

Langley, A., Hampton, J., Kleiber, P. and Hoyle S. *Stock Assessment of Yellowfin Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*. Third regular session of the WCPFC Scientific Committee, 13-24 August 2007, Honolulu, United States of America. WCPFC-SC3-2007/SA-WP-1. www.wcpfc.int

Langley, A., Wright, A., Hurry, G., Hampton, J., Aqorau, T. and Rodwell, L. 'Slow Steps Towards Management of the World's Largest Tuna Fishery' in *Marine Policy*, Vol. 33, 2008, pp. 271-279.

Langley, A., Hampton, J., Kleiber, P. and Hoyle S. *Stock Assessment of Bigeye Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA-WP-1. www.wcpfc.int

Langley, A. and Hampton, J. *Stock Assessment of Skipjack Tuna in the Western and Central Pacific Ocean*. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/SA WP-4. www.wcpfc.int

Minto, C., Myers, R. A. and Blanchard, W. 'Survival Variability and Population Density in Fish Populations' in *Nature*, No. 452, 2008, pp. 344-347.

Myers, R. A., Bowen, K. G. and Barrowman, N. J. 'The Maximum Reproductive Rate of Fish at Low Population Sizes' in *Canadian Journal of Fisheries and Aquatic Sciences*, No. 56, 1999, pp. 2404-2419.

SPC-OFP, Scientific Data Available to the Western and Central Pacific Fisheries Commission. Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/ST-IP-2. www.wcpfc.int

United Nations, 'Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks' in *International Legal Materials*, No. 34, 1995.

WCPFC, *The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Scientific Committee Third Regular Session, 13-24 August 2007, Honolulu, HI, U.S.A.* www.wcpfc.int

WCPFC, *The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Scientific Committee Forth Regular Session, 11-22 August 2008, Port Moresby, Papua New Guinea.* www.wcpfc.int

WCPFC, *Review of CCM's Implementation of, and Compliance With, Conservation and Management Measures.* Fourth regular session of the WCPFC Technical and Compliance Committee, 2–7 October 2008, Pohnpei, Federated States of Micronesia. WCPFC-TCC4-2008/10. www.wcpfc.int

Williams, P. and Terawasi, P. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2007.* Fourth regular session of the WCPFC Scientific Committee, 11–22 August 2008, Port Moresby, Papua New Guinea. WCPFC-SC4-2008/GN WP-1. www.wcpfc.int

9. The Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean: Implementation Challenges from a Historical Perspective

Sandra Tarte

Introduction

The negotiation of the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the WCPF Convention)¹ from 1997 to 2000 signaled a major turning point for Pacific Islands coastal States and distant water fishing nations (DWFNs) in the Western and Central Pacific. It was the first time these two groups of States sat together at the table to work out a mechanism for broad-based management of the highly mobile and highly valuable tuna stocks of the region. The negotiations also marked the beginning of a process of building an international regime that would promote the long-term conservation and sustainable use of the region's tuna fisheries. In many respects this process is still unfolding, despite the adoption of the WCPF Convention and its subsequent entry into force in June 2004.

The WCPF Convention establishes a broad-based regime for the collective management of tuna and other highly migratory stocks in the region. It has been described as a 'third generation' treaty, building on the 1982 United Nations Convention on the Law of the Sea (LOSC)² and the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement or UNFSA).³ One of the common characteristics linking these three treaties is that they all encompass high seas and areas under national jurisdiction. Drawing on Article 64 of the LOSC and various sections of the UNFSA, the WCPF Convention seeks to promote cooperation between coastal States and fishing nations "with a view to ensuring conservation and promoting the objective of optimum utilisation of highly migratory fish stocks through their range."⁴

It is the contention of this chapter that the implementation challenges now facing the members of the WCPFC regime – and in particular the Pacific Islands States –

¹ WCPF Convention

² 1982 United Nations Convention on the Law of the Sea

³ 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; Swan, 2000.

⁴ WCPF Convention, Preamble.

may be in part understood by reviewing the origins of the WCPF Convention and its evolution. The analysis thus takes an historical perspective by highlighting what have – over time – been the main challenges impeding and undermining cooperation between States in the management and conservation of tuna stocks in the Western and Central Pacific region.

The chapter begins with a short overview of the background to the WCPF Convention. It then examines what was an early challenge to the region’s implementation of the LOSC: overcoming reluctance on the part of Pacific Island States to cooperate with DWFNs in broad based management and conservation of the tuna fisheries. This reluctance to cooperate gave way to a second major challenge: a lack of shared understanding especially between Pacific Island coastal States and DWFNs about the scope and method of cooperation. This characterised the period leading up to the negotiation of the WCPF Convention, as well as influencing the negotiation process itself. The third key challenge that will be covered here relates to a more contemporary challenge: overcoming capacity constraints – particularly on the part of Pacific Island States – in implementing conservation and management measures. This section looks at how this problem was dealt with in the WCPFC negotiations and the Convention, focusing in particular on the development of Article 30. The chapter concludes by suggesting that all three challenges are to some extent intertwined and continue to influence the level and effectiveness of cooperation between Pacific Island States and DWFNs in the region.

A Brief Background to the WCPF Convention

In many respects, the negotiation of the WCPF Convention marked the final phase of a process that began with the formation of the Pacific Islands Forum Fisheries Agency (FFA) in 1979. Article III of the FFA Convention recognised that “effective cooperation for the conservation and optimal utilization of the highly migratory species of the region will require the establishment of additional machinery to provide for cooperation between all coastal States in the region and all States involved in the harvesting of such resources.” This was with a view to fulfilling responsibilities under what would become Article 64 of the LOSC.⁵

For reasons that will be explained more fully below, this “additional machinery” did not begin to be developed until the mid 1990s; that is over 15 years after the establishment of the FFA. This is despite pressure and prompting from several major DWFNs in the region to develop a broad based “Article 64 type”

⁵ Nandan, 1997; Article 64 requires that coastal states and other states whose nationals fish in a region for highly migratory species ‘shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone’.

international tuna management organization for the region, comprising DWFNs and coastal States.

In the mid 1990s, responding to a concern about the status of some fish stocks in the region, as well as moves at the international level to elaborate on relevant provisions of the LOSC relating to the management and conservation of highly migratory and straddling fish stocks on the high seas (the UNFSA), increased dialogue began to take place between FFA member countries and DWFNs. This dialogue was primarily of a technical nature, tailored to promote cooperation on specific issues: the December 1994 Multilateral High Level Conference on South Pacific Tuna Fisheries, followed by the September 1995 Vessel Monitoring System (VMS) technical consultations and the July 1996 technical consultation on the collection and exchange of fisheries data.

What eventually grew out of this *ad hoc* dialogue, as well as out of a FFA-based process to examine future management arrangements in the region between 1995 and 1996, was a decision by the FFA leaders to invite DWFNs to a second multilateral high level conference, to be held in Majuro in June 1997, to begin a process of developing comprehensive management and conservation arrangements for the region's tuna stocks, throughout their migratory range. It was this 1997 conference that formally launched what is now known as the MHLC (Multilateral High Level Conference) process at which the WCPF Convention was negotiated.

The Majuro Declaration, adopted in June 1997, set a timeframe of three years for the negotiation of a legally binding arrangement to facilitate cooperation in the management and conservation of tuna stocks throughout their migratory range in order to ensure long-term sustainability. Although the Majuro Declaration provided a foundation upon which to begin negotiations, as will be pointed out below this belied some fundamental differences between participants about the nature and scope of the proposed arrangement. In part, this reflected the lack of consensus on key provisions of the UNFSA – which provided the major framework for the MHLC negotiations.

Negotiations on a first draft text of a regional arrangement, prepared by Conference Chairman Ambassador Satya Nandan, who had also chaired the UNFSA negotiations, began at the next session of the MHLC in June 1998 in Tokyo. These negotiations continued over the next two years at four more sessions of the conference, all of which were held in Honolulu, Hawaii. At the final session (MHLC7) in September 2000, the text was finalized and the WCPF Convention was formally adopted by a vote.⁶

⁶ There were 19 votes in favor, two against and three abstentions. By 2000, the MHLC process included all 16 FFA states, plus the following states and entities: France, Japan, South Korea, China, the US, Canada,

It is beyond the scope of this chapter to provide a detailed discussion of the provisions of the WCPF Convention. In terms of institutional arrangements, however, the WCPF Convention establishes a Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC). There is also to be a Scientific Committee and a Technical and Compliance Committee, to provide advice and make recommendations in their respective areas of competence. In addition, a permanent Secretariat to service the WCPFC is established, to operate according to the principle of cost-effectiveness. The WCPF Convention also provides for a separate committee to be established by the WCPFC to make recommendations on management and conservation measures pertaining to fish stocks occurring mostly in the northern part of Convention Area.⁷

As part of its final act, MHL7 also adopted a resolution establishing a Preparatory Conference to undertake some of the preliminary work of the WCPFC pending the entry into force of the WCPF Convention and formal establishment of the WCPFC and its subsidiary bodies. The Preparatory Conference (or PrepCon as it came to be called) had the challenging task of providing a “smooth transition” to the new management and conservation regime, elaborating on or clarifying those parts of the WCPF Convention that remained to be resolved: including the funds of the WCPFC and scheme of contributions, participation of territories, the role of the so-called Northern Committee, the scientific arrangements and the location of the WCPFC headquarters.⁸

The first session of the PrepCon was convened by New Zealand, as depositary of the WCPFC, and chaired by retired New Zealand diplomat Ambassador Michael Powles. Altogether seven sessions were held, including the final session which merged into the inaugural meeting of the WCPFC in December 2004 in Pohnpei.⁹ The WCPF Convention entered into force in June 2004 with thirteen ratifications, all of whom were members of the FFA. At the first session of the WCPFC, the recommendations of the PrepCon covering the areas noted above were formally adopted.

Indonesia, the Philippines and Chinese Taipei. Mexico and the European Union had observer status. See Tarte, 2002a for a history of the MHL7 process.

⁷ That is north of 20 degree North latitude. See WCPF Convention, Article 11, par.7.

⁸ See Final Act of the MHL7, in Report of the Seventh and Final Session of the Multilateral High Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, Honolulu, Hawaii, 30 August - 5 September 2000, Annex 7.

⁹ The PrepCon sessions were as follows: Christchurch April 2001, Madang February 2002, Manila November 2002, Suva May 2003, Rarotonga October 2003, Bali April 2004 and Pohnpei December 2004.

Challenge One: Overcoming a Reluctance to Cooperate

As noted earlier, there was a delay of some 15 years between the formation of the FFA in 1979 and the first tentative steps towards broad-based cooperation with the DWFNs. It would be a further six years before the adoption of the WCPF Convention. To a certain extent, this lag could be viewed as both necessary and natural, allowing time for the countries of the region to consolidate their new-found tenure rights under the LOSC. Moreover, as Ambassador Satya Nandan observed in his opening address to the Majuro MHLC in 1997:

While it is true that there has been a long delay in establishing a cooperative mechanism with a participation that would include coastal states and distant water fishing nations, the delay may have worked to the advantage of both sides. As a result of long experience, governments and fisheries managers in the region are now in a better position to understand the issues.¹⁰

But the prospect of cooperating with DWFNs in the management and conservation of the tuna fisheries of the Pacific was also one that many countries viewed with reluctance – if not trepidation. This was for a number of reasons.

The “long experience” alluded to by Ambassador Nandan above included a history of conflict and distrust between Pacific Island States and key DWFNs. The United States (US) had initially refused to recognise the sovereign rights of coastal States over highly migratory species (namely tuna) in their exclusive economic zones (EEZs). This reflected their reading of Article 64 of the LOSC as well as the political influence of the powerful American Tunaboat Association – an industry lobby group. Relations with the US only improved in the late 1980s, following a shift in US policy and the conclusion of the Multilateral Fisheries Treaty in 1987.¹¹

Relations with Japan, which is traditionally the dominant DWFN in the Pacific, had also been fraught. Although Japan entered into bilateral access agreements with Pacific Island States (thereby recognising the sovereign rights of coastal States), it exploited its dominance in the region as a fishing power and aid donor to negotiate agreements on terms highly favourable to its industry. Despite the cooperative efforts of the FFA States, and in particular the sub-regional Parties to the Nauru Agreement (PNA), Japan refused to pay more than a nominal access

¹⁰ Nandan, 1997.

¹¹ The full title is Treaty on Fisheries between Governments of Certain Pacific Island States and the Government of the United States of America.

fee. It also insisted on making aid conditional on access, and incorporating aid as part of the access fee.¹²

Conflicts between the Pacific Island States and DWFNs were made more intractable by the obvious power disparities between the DWFNs and Pacific Islands (ameliorated only in part by regional cooperation). The failure to translate new-found tenure rights into real or substantial economic benefits was seen in part to be a function of the acute political and economic inequalities between the US, Japan and other DWFNs on the one hand, and the Pacific Island States on the other.¹³ There was a palpable sense of vulnerability among Pacific Island States – alluded to by Satya Nandan in his closing address to MHLCT¹⁴ – and a belief that their interests would not be served by such cooperation.

This leads to another reason why there was a reluctance to cooperate towards management and conservation: the overriding priority and preoccupation of Pacific Island States – at least in the early years – was to strengthen the exercise of their sovereign rights over their EEZs in order to maximize economic benefits from their marine resources.

Thus, the South Pacific Forum meeting in 1977 decided that the role of the proposed FFA should be limited to assisting member governments in the exercise of their sovereign rights to manage fisheries in their EEZs. The key strategy of the Pacific Islands States from the late 1970s was to maximize economic returns through the selling of licenses largely to foreign fishing vessels in exchange for access to their EEZs. Access agreements were thus the main instrument through which the tuna resource was managed, and have remained so according to some observers.¹⁵

The role of the FFA (and PNA) was to assist members to “collectively establish their new marine tenure rights, increase the local economic benefits derived from their fisheries resources, and improve their negotiating position with the distant water fishing nations fishing in the 200 mile zones.”¹⁶ Pacific Island States thus viewed the tuna resource primarily as an economic resource. Conservation considerations were secondary to economic objectives. Moreover, “the perception that tuna represents an economic opportunity from which to build an economic

¹² Tarte, 1998.

¹³ Schurman, 1998.

¹⁴ ‘In dealing with this region account has to be taken of the feelings and vulnerability of some of the world’s smallest states when they enter into a cooperative arrangement ... with some of the largest and most powerful countries. It would be insensitive to disregard or ignore this reality; equally it would be insensitive to impose on this group of countries a regime which would add further to their sense of vulnerability.’ (Nandan, 2000)

¹⁵ Aqorau 2003.

¹⁶ Schurman, 1998.

base for survival” influenced the attitudes of the Pacific Islands States for most of the post-independence era.¹⁷

It is important to highlight these political and economic issues because they remain pertinent today. The protection of sovereign rights and the pursuit of economic benefit remain cornerstones of many countries’ ocean policies in the region. This is how national interest continues to be defined and viewed. Overcoming a reluctance to cooperate¹⁸ has thus required a delicate and difficult balancing act between protecting sovereign rights on the one hand and promoting international cooperation on the other; and between maximizing short-term gain on the one hand and long-term benefits on the other.

Challenge Two: Agreeing on a Mechanism for Cooperation

The lag in establishing a broad-based fisheries management and conservation regime in the region was not only due to a reluctance by Pacific Island States to cooperate with DWFNs, but also due to the different (if not conflicting) views and expectations about what the scope and framework of cooperation should be.

The shift to cooperative management and conservation efforts in the Pacific region occurred in a two-stage process. The first stage was acceptance of the need to focus on fisheries management and conservation issues. The second was acceptance by Pacific Island countries of the need to cooperate with DWFNs in the development of management and conservation measures. On the latter issue, however, a key point of contention was who would dictate the pace and direction of cooperation: DWFNs or Pacific Island coastal States. This in turn rested on different interpretations of relevant LOSC provisions

Initial attempts to address fisheries management in the early 1990s were mainly undertaken unilaterally by the FFA member States. Driven in large part by FFA, these efforts found expression through newly revised Minimum Terms and Conditions (MTCs) of access adopted as part of the PNA’s Second Implementing Arrangement in 1991. These included measures that pertained to the high seas, as well as the EEZs: provision of high seas catch data, whenever fishing takes place within an EEZ as well as on the high seas; and a ban on transshipment at sea. Another attempt at management by the PNA that occurred in the early 1990s was the adoption of the Palau Arrangement in 1992. This came into force in December 1995. It provided a framework for the management of the purse seine fishery in the Western and Central Pacific.

¹⁷ Aqorau, 2003.

¹⁸ This applies to cooperation among Pacific Island States as well as to cooperation between Pacific Island States and DWFNs.

In justifying these measures to skeptical (if not hostile) DWFNs, the FFA claimed that member States had a “legitimate interest in the conservation and management of highly migratory species on the high seas in order to exercise more effectively their sovereign rights within EEZs.”¹⁹ The Palau Arrangement was particularly important to the FFA States because it was seen as a way of rebutting claims by DWFNs, especially by Japan, that there needed to be an international tuna management organisation for the region, comprising DWFNs and coastal States. Japan wanted a broad-based fisheries organisation in the region that would give Japan and other DWFNs some say over resource allocation and utilization. The FFA responded that the Palau Arrangement precluded the need for such an organization since it limited purse seine licenses and hence fishing effort in the EEZs of the Western Pacific.²⁰

It is important to note the changing international context which influenced the dynamics of regional fisheries policy and diplomacy at this time. To a certain extent these regional initiatives taken by FFA/PNA were an attempt to influence the outcome of evolving law of the sea negotiations and to position themselves favorably in the negotiations that were unfolding at the UN. According to the FFA, Pacific Island States needed to “ensure that no inroads are made to the principle of sovereignty over highly migratory species while within areas of national jurisdiction.”²¹

The FFA States played an active role in the UN Fish Stocks Conference: fifteen out of sixteen members attended the final session in 1995 which adopted the UNFSA by consensus. This reflected the importance which they attached to the proceedings, and in particular the significance the UNFSA would have for future management arrangements in the region. But the way in which the UNFSA was understood in this regard is important to note. It was seen by FFA as providing a framework that promotes “good order *on the high seas* and the effective conservation and management of *high seas resources*.”²² (Italics added). It was not considered to be the basis for managing EEZs except indirectly.

In 1995 and 1996, the Forum Fisheries Committee’s (FFC) Sub-committee on Future Management Arrangements developed a proposed framework for regional tuna management. This approach called for cooperation among Pacific Island States to develop harmonised and competent in-zone arrangements. Coastal States

¹⁹ FFA, 1993.

²⁰ See Tarte, 1998 p. 105,120. These claims by Japan were made in the context of consultations on a multilateral access agreement between FFA states and Japan that took place in 1989 and 1990, as well as during subsequent consultations in 1993 on the revised MTCs.

²¹ FFA, 1993.

²² FFA, 1996.

could thus set a high standard of conservation and management for their in-zone fisheries that, according to the principle of compatibility, would also have to apply to the high seas. Pacific Island coastal States would thus be in a stronger position to negotiate with DWFNs on the establishment of an “Article 8” arrangement essentially to deal with high seas issues.²³

Despite having the backing, in principle, of the FFC, as well as of one of the architects of the UNFSA, Ambassador Satya Nandan,²⁴ this “complementary management” approach was in the end shelved in favour of one that provided for direct and immediate negotiation with the DWFNs on a regional management and conservation regime. This was an approach favored by the DWFNs, but one that Pacific Island States were not necessarily comfortable with. On the eve of the Majuro MHLC it was apparent that countries were going into the talks with quite different expectations and degrees of commitment. Among FFA members, there were some who wanted to keep to the same general format as MHLC1 (in 1994), that is an exchange of views on broad issues, and not proceed too quickly into negotiations. There was also a view within the FFC that the UNFSA, which provided the legal requirement for cooperation with DFWNs, was essentially about high seas fisheries. It did not prescribe broad-based cooperation in the management and conservation of in-zone fisheries. Any regional arrangement should be viewed as a “multilateral arrangement for consultation purposes and not for the DWFNs to become decision makers in the management of the tuna resources from within our EEZs.”²⁵

In contrast, the position of DWFNs was not to differentiate between EEZs and high seas for the purpose of management and conservation. Rather they generally advocated a single regime to manage stocks through their migratory range. It was argued that this was the only way to achieve effective conservation and management, and it could be done without detracting from the sovereign rights of

²³One of the areas LOSC elaborated on in the UNFSA (Article 7) was the requirement that conservation and management regimes inside the EEZs and those established for the adjacent high seas are compatible; so that the same or similar standard will apply to the stock in its entirety. Article 8 of the UNFSA calls for the establishment of regional fisheries management organisations or arrangements.

²⁴In 1996, Satya Nandan suggested that members of the FFA should:

‘enhance their level of cooperation through the FFA by establishing common fisheries management policies which each State will then apply in its area of national jurisdiction. They should assist each other in training, manpower development and research, in data collection and exchange, and in the coordination of the levels of allowable catches in their respective zones and in the region as a whole, in order to ensure that a precautionary approach to the management of resources is taken ... They should develop a coordinated and integrated management approach in order to strengthen the leadership role of the coastal States in the management of the resources of the region as a whole’. (Nandan, 1996).

²⁵Nauru Country Statement, FFC Special Thirty-Third Ministerial Meeting, 9 - 10 June 1997. The Pacific Island States sought an explicit recognition of coastal state sovereign rights within EEZs in the Majuro Declaration. However Australia and New Zealand expressed some concern that too much emphasis on coastal State rights may be counter-productive and overly confrontational.

coastal States. Both the US and Japan vigorously advocated this approach, although the US supported strong enforcement measures for the high seas, while Japan preferred a weaker enforcement regime (reflecting its opposition to provisions in the UNFSA).²⁶

Nowhere was the divide more marked between Pacific Island coastal States and DWFNs than on the issue of the role and powers of the proposed WCPFC, specifically in relation to allocation. Negotiations on this issue appeared to reach their most critical point at MHLC4 in February 1999. The FFA member States proposed text which would ensure that the functions of the WCPFC in respect to conservation and management measures would be limited to areas beyond national jurisdiction. This specifically included the allocation of total allowable catches (TACs). DWFNs were dismissive (if not scathing) in their response to the proposed text, with the US delegate describing it as a “non-starter” and “at cross-purposes with the Majuro agreement to manage stocks throughout their range.” This view was shared by Japan, Korea and Chinese Taipei.²⁷

As a result of these contrasting views, negotiations were not only difficult and at times fractious, but key issues were left unresolved, to become the subject of later negotiations within the WCPFC once it was established. On the issue of allocations for example, the Conference Chairman proposed to leave undefined the WCPFC’s role, referring instead to criteria and principles to guide allocation decisions. The WCPF Convention text that was subsequently adopted by the Conference, includes this somewhat ambiguous provision²⁸ what has been referred to elsewhere as a “jurisdictional grey area” and subject to different interpretations by DWFNs and coastal States.²⁹

Such “grey areas” – the result of compromises reached as a way of meeting the deadline set by members of the MHLC process to conclude an agreement – pose major challenges to the implementation of the WCPF Convention. This is particularly in light of the continuing disagreements between participating States on key issues, such as on the method of allocation. The method of allocation will have important economic consequences for member States, thus it is expected to

²⁶ At the time of the MHLC process, the UNFSA was regarded by some observers to be a tenuous basis for negotiation given the opposition of some DWFNs (notably Japan) to key provisions of the Agreement. At MHLC5, Japan sought to remove all references to the UNFSA, arguing that it was not yet in place but also that it did not provide clear guidelines on how to implement its provisions at the regional level. It also described the precautionary approach as a ‘dangerous concept’. This position was restated at MHLC7. (Tarte, 2002a, p.288, 294).

²⁷ The US comments were not well received by FFA member States. PNG, for example, expressed ‘shock’ at the comments ‘which do not appear to recognize our rights’ (author’s notes of the meeting).

²⁸ See Article 10, 1 [g] and 10, 3,

²⁹ Swan, 2000. According to Swan: ‘the Commission is empowered, not required, to take allocation decisions ... There is no express provision as to whether the allocations are for high seas fishing only’.

be the focus of intense negotiation and bargaining. But given that this issue is to be subject to consensus decision-making (yet another compromise reached in the MHLC), it is possible that no agreement will be reached and impasses will develop, leading to the need to consider alternatives.³⁰

The allocation issue reveals how conflicts over perceived rights and economic interests may impede cooperation and undermine the effective implementation of the WCPF Convention. It also indicates that consensus over the powers and jurisdictional competence of the WCPFC remains elusive. It is significant that at the time the WCPF Convention was adopted in 2000, it was greeted with mixed feelings and some pessimism. Most FFA members were unhappy with the last minute concession they agreed to make on the decision making provisions of the WCPF Convention. The two-chambered mechanism which had been proposed by the US was seen to represent a “significant dilution of coastal State voting power.”³¹

Another major concern – one that had brewed during the MHLC process but which was largely left unresolved – was how Pacific Island States would meet and discharge their obligations, as members of the WCPFC and as coastal States. Pacific Island coastal States needed to assume greater management and conservation responsibilities under the WCPF Convention. But in almost all countries, there was a severe short-fall in terms of technical, financial and legal resources to undertake these responsibilities.³² There was thus a real danger that countries were signing up to a convention that they had no means to implement, let alone the political will to enforce. This leads to the third major implementation challenge: overcoming capacity constraints – particularly on the part of Pacific Island States – in implementing the provisions of the WCPF Convention. The following section focuses on one aspect of this challenge: providing assistance and support for Pacific Island States to meet their obligations under the WCPF Convention and participate effectively in its work.

Challenge Three: Addressing Capacity Constraints

The Majuro Declaration recognized the “need for special assistance for Pacific Island developing States and territories to enable them to participate effectively in the conservation, management and sustainable use of the highly migratory fish

³⁰ Clarke, 2000. If Pacific Island States set their in-zone TAC, this could lead to them having control over the fishery. If the Commission allocates quotas throughout the convention area – a method used elsewhere – DWFNs could end up controlling the fishery. According to Clarke, the allocation issue may also be determined by the manner in which catch and effort data is provided. Clarke, 2000.

³¹ Tarte, 2001. The legacy of this pessimism continues to be felt among the FFA states, weakening their sense of ‘ownership’ over the Convention.

³² Aqorau, 2003, pp. 3-7.

stocks of the region.”³³ This reflected Articles 24 and 25 of the UNFSA which recognized the special requirements of developing States in relation to conservation and management, and the need to provide assistance to developing countries, particularly least developed and small island developing States, to enable them to discharge their responsibilities and participate in regional management regimes.

The need to provide assistance to developing countries has been described as a “consensus issue” in the MHLC process.³⁴ However, consensus on this issue was more apparent than real. FFA States, in fact, faced strong resistance during the MHLC negotiations from some DWFNs to their efforts to give practical effect to this principle. Japan not only rejected the inclusion of references to the UNFSA in the draft text,³⁵ it was also opposed to the creation of a special fund to assist developing member States, particularly to support their attendance at meetings of the WCPFC. There was also strong disagreement about how specific services of the WCPFC would be funded. These included VMS, observer program, vessel register, and scientific services. While FFA States favoured the principle of cost recovery, with costs levied against vessels operating in the area, DWFNs argued that these services should be covered by the WCPFC budget.

Many of these conflicts were eventually deferred to the PrepCon and the future Commission to resolve. The budget of the WCPFC,³⁶ for example, simply referred to “due consideration” being given *inter alia* to the ability to pay and state of development of members in assessing their respective contributions. The actual scheme of contributions, including the relative weight of each of the components of the budget was left undefined.³⁷

References to the special needs of small island developing States appear in a number of places in the WCPF Convention: the preamble, Article 7, Article 10, Article 18, and of course, Article 30. Article 30 elaborates at length on the “recognition of the special requirements of developing States,” in line with the UNFSA provisions. It includes a commitment to assist such States with limited capacity in MCS, stock assessment and collection and exchange of fisheries data.

³³ The Second Multilateral High-level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, Majuro 10-13 June, 1997, Report of the Conference, p.6.

³⁴ Sydnes, 2001, p. 796.

³⁵ See footnote n 26 above.

³⁶ Article 18 par.2, Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Preparatory Conference Secretariat, September 2002, p. 15.

³⁷ The three main components of the Commission budget are an equal basic fee, a fee based on national wealth and a variable fee based – *inter alia* – on the total catch taken within the member’s EEZ. The Convention provides for a discount factor to be applied in the latter case to catch taken by developing state parties in their own EEZs. It was expected that contributions based on fish catch would comprise the major portion of the Commission budget.

In addition, Article 30 requires that a fund be established by the WCPFC to facilitate the effective participation of developing State parties, particularly small island developing States in the work of the WCPFC and its subsidiary bodies. Due to lack of consensus within the MHLG about the proposed fund, it was left to the WCPFC to develop guidelines and criteria for its use and administration, as part of its financial regulations. The task of developing these financial regulations was taken on by the PrepCon and this is where much of the negotiation over Article 30 occurred.

For FFA member States, a priority during the PrepCon process was to give effect to those parts of the Convention dealing with the special requirements of developing States. In fact, in a FFC statement to PrepCon 3 in Manila in November 2002, Article 30 was described as “the foundation on which the Commission will be built.”³⁸ To meet the provisions of Article 30, the FFA group called for the so-called special requirements fund to be part of the core budget of the WCPFC, funded by assessed, not voluntary contributions. Allocations to this fund should be sufficient to meet the costs of participation for developing States and territories in all Commission sessions and meetings of its subsidiary body. The fund should also be sufficient to enhance the technical capacity of participants from developing States. This proposal appeared to be an anathema to a number of DWFN participants, with Korea voicing its concern that such a fund would “change the nature of the Commission to a development assistance organization.”³⁹

Article 30 remained the focus of intense negotiations at subsequent sessions of the PrepCon. As a way of moving the process forward, FFA members agreed at PrepCon 5 in Rarotonga to distinguish between the effective participation and the capacity building components of the Article 30 provisions. For the FFA group, while it was necessary that a “minimum level” of technical assistance for capacity building be funded from assessed contributions, there was also some scope for funding these activities from voluntary contributions. The “effective participation fund”, however, should be drawn from the Commission’s budget.⁴⁰

What was eventually agreed was that participation costs for developing member States would be a line item in the WCPFC’s budget, funded from assessed contributions. The financial regulations provide for the budget to include an item for the travel/accommodation of one representative from each developing State

³⁸ Tarte, 2002b, p. 5. See also FFC statement to the Working Group on Organization Structure, Budget and Financial Contributions (Working Group 1).

³⁹ Tarte, 2002b, p. 6. The reason for arguing in favor of the fund being sourced from assessed, not voluntary, contributions was because of the experience of other regional fisheries management organisations where the practice of voluntary funds had failed to facilitate effective participation of developing states. Canada supported the FFC stance but most DWFNs opposed this position.

⁴⁰ Tarte, 2003, p. 9.

party to the Convention and where appropriate, for territories and possessions, to each meeting of the WCPFC and of its subsidiary bodies. The financial regulations also spell out in more detail the operations and guidelines of the so-called special requirements fund, to be funded from voluntary contributions. They stipulate that the purposes of this fund are to assist in human resource development, technical assistance and technology transfer, relating to the development of fisheries and conservation and management; as well as building capacity in MCS, data collection, scientific research and in the effective exercise of flag State responsibility. Those eligible to apply for and receive assistance are developing State parties, particularly small island developing States. The WCPFC will consider and decide on these applications.⁴¹

How meaningful and useful the special assistance fund is for Pacific Island States remains to be seen. According to the report tabled at the third regular session of the WCPFC in December 2007, the special requirements fund appears to be largely inactive. It received no contributions in the past year, and only one project (to Marshall Islands – costing USD 4,042) was approved.⁴² But there is no doubt that the WCPF Convention’s provisions relating to the needs and interests of small island developing States are important ‘power-points’ for the region.

Conclusion

Regional efforts to manage and conserve tuna stocks in the Pacific Islands region have been defined historically by three main challenges. As earlier suggested, these three challenges – overcoming a reluctance to cooperate, agreeing on the mechanisms for cooperation, and addressing capacity constraints affecting Pacific Island coastal States – continue to resonate. They provide a basis for understanding the implementation challenges now facing the WCPF Convention. It is also suggested that these challenges are, to a certain extent, interconnected.

Overcoming a reluctance to cooperate will mean addressing the perceived and inherent vulnerabilities of Pacific Island States. This in turn can only be achieved by securing their rights and interests in the WCPFC, and ensuring they are not side-lined in its deliberations. As noted above, there are a number of ambiguities or ‘grey areas’ in the WCPF Convention, reflecting the lack of consensus on key issues during the MHLC and PrepCon negotiations. How these are interpreted will have important ramifications for members’ rights and interests (and hence commitment to cooperate). These ambiguities or ‘grey areas’ in the WCPF Convention may work against or in favour of member countries.⁴³ But which

⁴¹ See Regulation 7 of the Financial Regulations, Western and Central Pacific Fisheries Commission, available at www.wcpfc.int

⁴² The balance in the fund was USD53,560. (WCPFC4-2007-FAC1/05).

⁴³ Swan, 2000.

members' interests are favoured may in turn depend on how effective their participation is within the regime. Hence the importance of the budget provision for participation in the work of the WCPFC and the special requirement fund to build capacity and assist countries in the conservation and management of their tuna resource.

Bibliography

Aqorau, T. 'Tuna Fisheries Management in the Pacific – Challenges in the New Century', SeaWeb/PINA Workshop, Apia, 28 July 2003.

Clark, L. 'The Convention and National Fisheries Management', FFA/ADB Workshop on the Implementation of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Apia, 23 - 26 October, 2000.

Forum Fisheries Agency, 'United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks', FFA Report 93/ 33, Honiara, 1993.

Forum Fisheries Agency, 'Regional Fisheries Issues', Forum Officials Committee Meeting Brief, 1996.

Nandan, S. Statement to the Fourth Symposium on Central Western Pacific Tuna Fisheries, Tokyo, Japan, 10 June, 1996.

Nandan, S. Opening Statement, Second Multilateral High-Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, Majuro, 10 - 13 June 1997.

Nandan, S. Closing Remarks of the Chairman in Report of the Seventh and Final Session of the Multilateral High-Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, Honolulu, Hawaii, 30 August - 5 September, 2000.

Schurman, R. A. 'Tuna Dreams: Resource Nationalism and the Pacific Islands' Tuna Industry' in *Development and Change*, Vol. 29, 1998, pp.107-136.

Swan, J. *Legal Issues*, FFA/ADB Workshop on the Implementation of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Apia, 23 - 26 October 2000.

Sydnos, A. K. 'Establishing a Regional Fisheries Management Organization for the Western and Central Pacific Tuna Fisheries' in *Ocean and Coastal Management*, Vol. 44, 2001, pp. 787-811.

Tarte, S. *Japan's Aid Diplomacy and the Pacific Islands*, National Centre for Development Studies and Institute of Pacific Studies, Canberra and Suva, 1998.

Tarte, S. *Small Islands; Big Fish: The International Politics of Tuna Management in the Western and Central Pacific*, Marine Studies Program Working Paper 2001/04, University of the South Pacific, Suva, 2001.

Tarte, S. 'A Duty to Cooperate: Building a Regional Regime for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific' in *Ocean Yearbook*, Vol. 16, 2002a, pp. 261-299.

Tarte, S. *Report on the Third Session of the Preparatory Conference for the Establishment of the Commission on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, 18-22 November, Manila, Philippines, Unpublished Report, University of the South Pacific, Fiji, 2002b.

Tarte, S. *Report of the Fifth Session of the Preparatory Conference for the Establishment of the Commission on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, 29 September – 3 October 2003, Rarotonga, Cook Islands, Unpublished Report, University of the South Pacific, Fiji, 2003.

10. Control, Cooperation and ‘Participatory Rights’ in the Western and Central Pacific Ocean Tuna Fisheries

Quentin Hanich

Introduction

Pacific Island governments and other members of the Western and Central Pacific Fisheries Commission (WCPFC)¹ are concerned at the level of capacity migration into the Western and Central Pacific Ocean (WCPO) tuna fisheries.² Overcapacity is recognised as one of the primary causes of overfishing.³ This is an important concern for the WCPO tuna fisheries where the WCPFC Scientific Committee has repeatedly recommended reductions in fishing mortality on bigeye and yellowfin.⁴ Furthermore, economists have suggested that fishing capacity in some WCPO tuna fisheries is significantly above optimal levels, thereby reducing the profitability of these fisheries.⁵ Unmanaged capacity migration into the WCPO tuna fisheries exacerbates overfishing pressures and increases the difficulty of negotiating an effective management response within the WCPFC.

These tuna fisheries are the world’s largest⁶ with an estimated value of approximately AUD\$3.9 Billion.⁷ They are the only significant resource for some Pacific Island States and have long been viewed as the primary

¹ The full title is the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (hereafter the WCPFC). The Commission is the decision making body for the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (hereafter the WCPF Convention) which entered into force in July 2004.

² WCPFC, *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Fourth Regular Session. Summary Report*, 2 - 7 December 2007, Guam, 2007, cited 25 March 2008. <http://www.wcpfc.int/>

³ FAO, *Fishing Capacity*, Fisheries and Aquaculture Department of the Food and Agriculture Organisation (FAO), 2008, cited 26 March 2008. <http://www.fao.org/fishery/topic/2898#container>

⁴ In 2007, some WCPFC members expressed concern that the WCPFC has yet to implement conservation measures that will achieve the reductions in fishing mortality recommended by the Scientific Committee recommendations. WCPFC, *Summary Report*, 2007.

⁵ Bertignac, M., Campbell, H., Hampton, J. and Hand, A. ‘Maximising Resource Rent from the Western and Central Pacific Tuna Fisheries’ in *Marine Resource Economics*, Vol. 15, 2001, pp. 151-177. Kompass, T. and Che, T. ‘Economic Profit and Optimal Effort in the Western and Central Pacific Tuna Fisheries’, in *Pacific Economic Bulletin*, Vol. 21, No. 3, Australian National University, Canberra, 2006.

⁶ For the purposes of this chapter, the WCPO is defined as those waters within the Area defined by the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. This stretches from Indonesia and the Philippines in the west to Hawaii, Kiribati and French Polynesia in the East.

⁷ Williams, P. and Terawasi, P. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, including Economic Conditions – 2007*. Paper presented to the Fourth Regular Session of the Scientific Committee of the Western and Central Pacific Fisheries Commission. 11 - 22 August 2008. Port Moresby, Papua New Guinea. WCPFC-SC4-2008/GN WP-1 For further information, see: Reid, C. *Value of WCPO Tuna Fisheries*, Pacific Islands Forum Fisheries Agency, Honiara, 2007.

development opportunity for some of the region's developing island states. Foreign fishing access fees deliver much-needed financial contributions to governments, while domestically-based fishing fleets and support industries pump hard currency into national economies. In some cases tuna revenue contributes up to 42% of gross domestic product.⁸

It is no surprise then that sustainability and profitability concerns have heightened antagonism by many Pacific Island States against the fishing activities of non-members or 'new entrants' in the WCPO tuna fisheries. Given their high dependence upon these resources, Pacific Island States are motivated to protect and maximise their share of these fisheries. There is a concern that new entrants may ultimately be allocated a share of the tuna fishery if they engage with the WCPFC and build a fishing history. As these fisheries are already suffering from overcapacity and overfishing, any future allocation to a new entrant will necessarily reduce the allocation available to other WCPFC members.

However, not all Pacific Island States are antagonistic to new entrants as some States view new entrants as an opportunity to further their own national interest through increased competition and higher returns on access fees and related support industries. The Pacific Islands have long resisted any capacity management measure that preferences historical or current fishing operations as this would discriminate against Pacific Island aspirations to increase their participation in the fishery. Similarly, Pacific Island States have opposed capacity limits that constrain the choice of Pacific Island States on what vessels they license to fish within their waters which could consequently reduce the potential for competition and undermine economic efficiency. Instead, Pacific Island States have adopted strategies that assert the rights of Pacific Island States to choose who fishes in their waters, within established sustainability limits, and have supported management measures that provide equitable limits on catch and effort.

Additionally, as is demonstrated in this chapter's vessel data analysis, some of these so-called new entrants have some history of participation in the WCPO tuna fisheries and could conceivably argue that they have an existing interest in these fisheries.

This chapter examines the global and regional frameworks that establish the participatory rights and responsibilities of flag States and regional fisheries management organisations (RFMOs). The chapter then analyses regional databases to identify flag States that have previously participated in the WCPO tuna fisheries in any form, however minimal. Some of these States and entities are likely to be no longer participating in the fishery, while other States have only recently become active. The chapter then discusses their obligations, if

⁸ Gillett, R. and Lightfoot, C. *The Contribution of Fisheries to the Economies of Pacific Island Countries*, Asian Development Bank, Forum Fisheries Agency, and the World Bank, Manila, 2002.

any, to implement WCPFC measures.⁹ Twenty nine of these identified flag States are not members, or cooperating non-members of the WCPFC. Given the space limitations of this chapter, the analysis does not go into sufficient detail to individually support or counter arguments for participatory rights, but simply indicates which States and entities could potentially express an historical interest in the WCPO tuna fisheries.

Background

The issue of participatory rights in international fisheries raises complex, and often conflicting, concerns relating to conservation, development and international law. This issue becomes particularly difficult in fisheries that migrate across or straddle the high seas and multiple exclusive economic zones (EEZ) due to the inherent necessity for cooperative management responses involving multiple stakeholders. Regional cooperation is necessary to agree on participatory rights in a form that limits fishing capacity to sustainable levels and prevents unsustainable levels of capacity migration.

The Multilateral High Level Conference (MHLC) that negotiated the WCPFC, and subsequent WCPFC Preparatory Conferences and Commissions, noted concerns regarding increasing levels of capacity migration into the WCPO fisheries and adopted multiple resolutions calling on States to reduce or restrain increases in fishing capacity.¹⁰

This capacity migration is in part a symptom of the significant global overcapacity in fishing fleets, the dire status of many fisheries and the increasing global demand for seafood products. Despite global and regional efforts¹¹ to reduce overcapacity in fishing fleets, the Food and Agriculture Organisation (FAO) noted in 2007 that the number of fishing vessels worldwide has remained fairly consistent.¹² While some States have made efforts to reduce overcapacity within their fleets, increases in the fleets of other States combined

⁹ See Table in Annex A for references. Of further interest, approximately 80 States from around the world are involved in global tuna fisheries, some within their coastal waters and others wherever tuna are found. Joseph, J. 'Managing Fishing Capacity of the World Tuna Fleet' in *FAO Fisheries Circular*, No. 982, FAO, Rome, 2003.

¹⁰ WCPFC *Resolution on Reduction of Overcapacity, Resolution-2005-02*, adopted in December 2005 by the Western and Central Pacific Fisheries Commission (WCPFC), 2005.

¹¹ In 1999, the FAO Committee of Fisheries (COFI) adopted the International Plan of Action for the Management of Fishing Capacity. Joseph, J. 'Managing Fishing Capacity of the World Tuna Fleet' in *FAO Fisheries Circular*, No. 982, FAO, Rome, 2003. In 2005, Ministers from the Asia Pacific region expressed serious concerns regarding the continuing threats to fisheries sustainability posed by: fishing overcapacity; illegal, unreported and unregulated fishing; discards; and by-catch. APEC *Joint Ministerial Statement. 2nd APEC Ocean Related Ministerial Meeting*, Bali, September 2005, cited 26 March 2008. http://www.apec.org/content/apec/ministerial_statements/sectoral_ministerial/ocean-related/2005_ocean-related.html

¹² FAO, *The State of World Fisheries and Aquaculture 2006*, FAO Fisheries and Agriculture Department, Rome, 2007.

with increases in fishing efficiency and vessel power have largely negated the effectiveness of these efforts.¹³

In 1995, the 21st Session of the Committee of Fisheries (COFI) of the FAO noted that overfishing (due primarily to excess capacity of fishing fleets) was threatening the sustainability of the ocean's marine living resources.¹⁴ This problem has not eased. In 2007, the FAO reported that 77% of global fish stocks are either fully fished, overfished, depleted or recovering from depletion with no possibilities in the short or medium term for further increases in fishing effort.¹⁵ Finally, global demand for seafood products has increased by 200% in the past 30 years and is forecast to continue growth at a rate of 1.5% per year through 2020 as global populations and per capita fish consumption continue to grow.¹⁶

Management limits and quotas can serve to slow overfishing, but if management responses do not reduce the overcapacity then excess capacity continues to drive overfishing within the fishery or it migrates into less regulated fisheries. Until recently, most WCPO tuna fisheries have effectively been open access due to the lack of management limits for the high seas and the minimal limits imposed in the EEZs.

As the WCPFC and the Vessel Day Scheme (VDS)¹⁷ necessarily reduce catches, the region will be increasingly challenged to remove the excess capacity created by these limits and control fishing vessels from States that are not members of the WCPFC and which migrate into the region. The next section describes the global framework that defines flag and coastal State rights and responsibilities.

Global Framework – Exclusive Economic Zones

The 1982 United Nations Convention on the Law of the Sea (LOSC)¹⁸ provides the over-arching framework for marine fisheries and defines the limits of

¹³ *Ibid.*

¹⁴ FAO, *Report of the Twenty First Session of the Committee on Fisheries*, Twenty First Session of the Committee on Fisheries, Food and Agriculture Organisation of the United Nations, Rome, 2007.

¹⁵ FAO, above n 12, 2007.

¹⁶ Delgado, C., Wada, N., Rosegrant, M., Meijer, S. and Ahmed, M. *Outlook for Fish to 2020: Meeting Global Demand*, International Food Policy Research Institute, Washington DC, 2003.

¹⁷ The VDS was implemented by the Parties to the Nauru Agreement (PNA) in December 2007 and limits purse seine fishing effort within the EEZs of PNA members. PNA members are a subset of the Forum Fisheries Agency (FFA): Papua New Guinea, Solomon Islands, Micronesia, Marshall Islands, Palau, Tuvalu, Kiribati and Nauru.

¹⁸ United Nations, 'United Nations Convention on the Law of the Sea' (hereafter the LOSC), signed at Montego Bay, Jamaica, on 10 December 1982, in *International Legal Materials*, No. 21, 1982, pp. 1261-1354. 50 six of the 65 States and entities identified in Annex A are parties to the LOSC. Three States have signed but not ratified the LOSC (Cambodia, El Salvador and Thailand) and six States have neither signed nor ratified the LOSC (Ecuador, Netherlands Antilles, Peru, St Vincent, United States of America and Venezuela). United Nations, *Chronological lists of ratifications of, accessions and successions to the Convention and the related Agreements as at 01 February 2008*, Division of Ocean

participatory rights, both on the high seas and within waters under national jurisdiction. Consequently, it is important to briefly consider this framework in regard to the issue of participatory rights.

The LOSC established the EEZ concept in international law.¹⁹ The EEZ brought under national jurisdiction large tracts of ocean that had previously belonged to the regime of the high seas and granted coastal States the sovereign rights to all living marine resources within 200 nautical miles.²⁰ This effectively transferred property rights for 85% to 90% of the world's then active fisheries from the international commons to coastal states.²¹

Obligations come with these property rights. The LOSC describes three obligations placed on coastal States in regard to their EEZ: conservation; optimum utilization; and a duty to cooperate. Firstly, Article 61 requires coastal States to manage and conserve fisheries within their EEZs. They shall determine the allowable catch of the living resources in their EEZ and ensure, through 'proper' conservation and management measures, that living resources within the EEZ are not over-exploited. Secondly, Article 62 obliges coastal States to share their surplus fish and promote the objective of optimum utilisation within their EEZ (without prejudice to conservation requirements). However, coastal States are granted a wide discretion in determining this surplus and the conditions for foreign access.²² Thirdly, Articles 63 and 64 oblige States to cooperate in regard to straddling and migratory fish stocks that occur within their EEZ, or whose vessels fish for the same stocks on the high seas.²³ Such States shall cooperate, either directly, or through fora such as RFMOs, and ensure the conservation and optimum utilisation of such stocks throughout their range.²⁴

Affairs and the Law of the Sea, United Nations, 2008, cited 27 March 2008. http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm

¹⁹ LOSC – Part V.

²⁰ Erik Molenaar notes that the sovereign rights granted to coastal States give them 'practically exclusive powers over regulating access' to the fisheries within their EEZ, including straddling and highly migratory fish stocks. Molenaar, E. J. 'Participation, Allocation and Unregulated Fishing: The Practice of Regional Fisheries Management Organisations' in *The International Journal of Marine and Coastal Law*, Vol. 18, No. 4, 2003.

²¹ Shyam, M. 'The Emerging Fisheries Regime: Implications for India' in *Ocean Development and International Law*, No. 8, Taylor and Francis, 1980.

²² Article 62 of LOSC states that coastal States are obliged to calculate their capacity to harvest the entire allowable catch of their EEZ and give other States access to any surplus beyond which their fleets could harvest. When giving access to other States to its EEZ, coastal States shall take into account all relevant factors, including, *inter alia*, the significance of the fisheries to the coastal State economy and its other national interests, Articles 69 (rights of landlocked States) and 70 (rights of geographically disadvantaged States), the requirements of developing States in the subregion/region in harvesting part of the surplus, and the need to minimize economic dislocation in States who have habitually fished in the zone or have made substantial efforts in research and identification of stocks.

²³ Straddling and highly migratory stocks may simultaneously straddle waters both within and beyond the EEZ, or may migrate back and forth across EEZ boundaries. Consequently, catches of these stocks on either side of an EEZ will affect the same stock with direct impacts on both coastal fishing fleets and high seas fishing fleets.

²⁴ Article 64 of LOSC also requires States to cooperate, in regions where there is no appropriate organisation, to establish such an organisation (i.e. RFMO) and participate in its operation.

Coastal States and fishing States established the WCPFC as the agreed mechanism to cooperatively manage tuna stocks within the WCPO. The WCPF Convention²⁵ states that it shall be interpreted and applied in the context of, and in a manner consistent with, the LOSC and the United Nations Fish Stocks Agreement (UNFSA)²⁶ and that nothing in it shall prejudice the rights, jurisdiction and duties of States under the LOSC or UNFSA.²⁷ Additionally, Article 10 of the WCPF Convention states the functions of the WCPFC are without prejudice to the sovereign rights of coastal States for the purpose of exploring and exploiting, conserving and managing highly migratory fish stocks within their EEZs.

In brief, the rights and responsibilities held by coastal State States effectively limit the question of participatory rights in the WCPO tuna fisheries to the high seas. Coastal States exclusively control the sovereign rights for all fishing within their EEZ, regardless of how many flag States are fishing in the region, or the extent of their fishing history.²⁸ Similarly, the WCPFC has no authority to allocate rights to fish within EEZs in any manner that undermines the sovereign rights of coastal States.

So long as Pacific Island States implement and enforce comprehensive licensing and reporting requirements to ensure that all catches from within their waters are attributed to the coastal State, they can effectively license whoever they want to fish within their waters (subject to treaty obligations such as the WCPFC), without concern that this may create an historical argument for future allocation to the flag State. If on the other hand, the catches from the coastal waters are attributed to the flag State, then the flag State could conceivably argue that it is has an historical catch history that warrants some consideration if the WCPFC were to initiate negotiations to allocate shares in the WCPO tuna fisheries, and consider catch history to be a significant criteria.

Finally, given that allocation decisions in the WCPFC require consensus,²⁹ and Pacific Island States are the largest voting bloc, the WCPFC is unlikely to adopt any allocation model that delivers less socio-economic benefits to these

²⁵ Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (hereafter the WCPF Convention), cited 25 March 2008. <http://www.wcpfc.int/>

²⁶ United Nations, 'Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks' in *International Legal Materials*, No. 34, 1995.

²⁷ WCPF Convention – Article 4.

²⁸ Some distant water fishing States have historically rejected interpretations of the LOSC that grant coastal States sovereign rights over migratory species within their EEZs. However, the reality at sea has essentially moved on. For over 20 years, the status quo has reflected the coastal State interpretation and there is no indication that fishing States are likely to fish for tuna within EEZs without the permission of coastal States.

²⁹ WCPFC – Article 10.4.

coastal States than what they would otherwise gain from their existing sovereign rights.

Global Framework – High Seas³⁰

The issue of participatory rights on the high seas needs to be considered within the framework of five principles that derive from the LOSC and the 1969 Vienna Convention on the Law of Treaties (1969 Vienna Convention).³¹ These principles are fundamental to the rights and responsibilities of States and include: *Pacta tertiis*; freedom of the seas; global commons; flag State control; and a duty to cooperate.

Pacta tertiis describes the basic rule of customary international law which dates back to Roman law. The rule was codified in the 1969 Vienna Convention and states that treaties do not: ‘create either obligations or rights for a third State without its consent’.³² In practice, this means that the WCPFC cannot impose an obligation on a flag State to regulate, restrict or prohibit its vessels fishing on the high seas unless the flag State has consented to the obligation. Similarly, the WCPFC cannot impose obligations on market or port States to take actions without the consent of the market or port State.

Next, the LOSC continued the global commons status for the high seas³³ and provided that no State may validly purport to subject any part of the high seas to its sovereignty.³⁴ Similarly, the LOSC continued to apply the traditional freedom of the seas to the high seas, thereby granting all States the equal right to fish the high seas.³⁵ Every State has an equal right to access and share in the sea’s resources. An early consequence of these equal rights was the creation of an obligation not to interfere with the vessels of other States on the high seas, nor impose on their equal rights which led inevitably to the exclusivity of flag State jurisdiction. The LOSC subsequently endorsed in law the primacy of flag State jurisdiction over vessels on the high seas.³⁶

³⁰ LOSC – Article 86. In effect, the high seas are those parts of the sea that lie beyond the jurisdiction of coastal States (ie beyond 200 nautical miles from any coastal State).

³¹ The 1969 Vienna Convention on the Law of Treaties, signed at Vienna on 23 May 1969, entered into force on 27 January 1980, in *United Nations Treaty Series*, Vol. 1155, cited 27 March 2008. http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf

³² 1969 Vienna Convention – Article 34.

³³ Grotius, H. *The Freedom of the Seas*, Oxford University Press, New York, 1604. This publication is a translation of the latin text and was produced in 1916. Grotius argued that the oceans were the common property of all, particularly in regard to freedom of navigation and trade. This countered sovereign claims by Spain over the Pacific Ocean and the Gulf of Mexico, and by Portugal over the Indian Ocean.

³⁴ LOSC – Article 89.

³⁵ LOSC – Article 87.

³⁶ LOSC – Articles 91, 92 and 94 are particularly relevant.

Lastly, States have a ‘duty to cooperate’ with other States as may be necessary for the conservation of the living resources of the high seas.³⁷ States are required to consider a number of factors when establishing conservation measures and catch limits for high seas fisheries, including the special requirements of developing States, and to ensure that measures do not discriminate in form or in fact against the fishermen of any State.³⁸

The duty to cooperate is further elaborated for anadromous³⁹ and catadromous⁴⁰ stocks, trans-boundary and straddling stocks⁴¹ and highly migratory stocks (i.e. tuna).⁴² For highly migratory species, the LOSC requires coastal and fishing States to cooperate directly or through appropriate international organisations with a view to ensuring conservation and promoting the objective of optimum utilisation, both within and beyond the EEZ.⁴³

However, the interpretation and practical application of the duty to cooperate provisions of the LOSC have been problematic ever since its entry into force. The vagueness of the obligation and the lack of practical guidelines allowed some States to interpret the duty in a manner that minimised any regulation of their own fishing activities. Furthermore, the duty to cooperate does not necessarily involve the duty to reach an agreement, provided that cooperative action has been undertaken in good faith.⁴⁴

In summary, these five principles generally allow vessels to navigate and fish anywhere on the high seas, answerable only to the laws and regulations of the flag State to which they are registered. The flag State, in turn, is subject only to the treaty obligations to which it has consented and a generalised and unspecific duty to cooperate.

For example, vessels flagged to Guatemala and Honduras have previously fished within the WCPO and both States are parties to the LOSC, but neither are party to UNFSA or WCPFC.⁴⁵ In accordance with the principles described above, vessels flagged to these States (and others like them) enjoy a freedom to fish in the WCPO high seas subject only to a vague duty to cooperate.

³⁷ LOSC – Articles 63, 64, 66, 67, 116, 117 and 118. Article 118 of the LOSC elaborates on this cooperation and requires States to enter into negotiations ‘... with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organisations to this end.’

³⁸ LOSC – Article 119.

³⁹ LOSC – Article 66.

⁴⁰ LOSC – Article 67.

⁴¹ LOSC – Article 63.

⁴² LOSC – Article 64.

⁴³ LOSC – Article 64.

⁴⁴ Munro, G., Van Houtte, A. and Willmann, R. ‘The Conservation and Management of Shared Fish Stocks: Legal and Economic Aspects’, *FAO Fisheries Technical Paper*, No. 465, FAO, Rome, 2004.

⁴⁵ See table in Annex A for a full list of WCPO participants and WCPFC and UNFSA parties.

Regional Framework – United Nations Fish Stocks Agreement (UNFSA) and the Western and Central Pacific Fisheries Commission (WCPFC)

Partly in response to these weaknesses and gaps, further international law built upon the LOSC through the negotiation of additional binding and non-binding instruments.⁴⁶ Of these, UNFSA and WCPFC are the most directly relevant as they provide the regional framework for the determination of participatory rights within the WCPO tuna fisheries.

UNFSA parties are obliged to cooperate in order to conserve and manage straddling fish stocks and highly migratory fish stocks, either directly or through appropriate sub-regional fisheries organisations or RFMOs.⁴⁷ Furthermore, all UNFSA parties are to apply the conservation and management measures established by relevant existing RFMOs. This obligation significantly extends the authority of relevant RFMOs (such as the WCPFC) as it indirectly binds all UNFSA parties to apply all relevant RFMO conservation measures, regardless of their status in relation to individual RFMOs.⁴⁸

However, the UNFSA duty to cooperate does not automatically translate into a duty to participate in an existing RFMO, or establish a new one. Rather, UNFSA parties can choose in what manner they apply their duty to cooperate. They can become a member of the relevant organisation, or simply agree to apply the conservation and management measures established by the relevant organisation or arrangement.⁴⁹

Additionally, all UNFSA parties are obliged to support RFMO monitoring, control and surveillance (MCS) systems and ensure their measures are compatible with the RFMO MCS.⁵⁰ This specifically includes obligations for UNFSA parties to require their vessels to abide by the boarding and inspection procedures of RFMOs in the high seas, regardless of whether they are a member of the organisation or participant in an arrangement.⁵¹

Perhaps most powerfully, UNFSA explicitly states that only those States which agree to implement conservation and management measures of an existing RFMO (in regard to highly migratory and straddling stocks) shall have access to the fishery resources to which those measures apply.⁵² UNFSA binds its parties to prohibit vessels from fishing within the Convention Area of an

⁴⁶ Other relevant instruments include the: FAO Compliance Agreement; FAO Code of Conduct for Responsible Fishing; International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU); International Plan of Action for the Management of Fishing Capacity (IPOA-Capacity); International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds); and International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks).

⁴⁷ UNFSA – Article 5.

⁴⁸ UNFSA – Article 8.

⁴⁹ UNFSA – Article 8.3.

⁵⁰ UNFSA – Article 18.

⁵¹ UNFSA – Article 21.1.

⁵² UNFSA – Article 8.4.

existing relevant RFMO if it does not implement that RFMO's conservation and management measures.⁵³

In the context of the WCPO tuna fisheries, UNFSA expands the number of flag States required to abide by conservation and management measures adopted by the WCPFC (the relevant RFMO in this fishery). Of the 65 States and entities identified in Annex A with a history of participation in the WCPO tuna fisheries, only thirty six are members or cooperating non-members of the WCPFC. UNFSA expands this coverage through the addition of eleven States from the list that are party to UNFSA, and therefore indirectly bound to implement WCPFC conservation measures.⁵⁴

However, UNFSA has suffered from a slow take-up by Latin American States and States who operate open-registry flags of convenience. Of the 65 States and entities identified in Annex A, seventeen States and one entity are not party to either UNFSA or WCPFC and are not bound to implement WCPFC conservation measures.⁵⁵ In regard to these non-parties, UNFSA requires RFMO members to exchange information on vessels fishing for migratory and straddling stocks that are flagged to States which are neither members of the relevant RFMO or party to UNFSA.⁵⁶ RFMO members shall also:

... take measures consistent with this agreement and international law to deter activities of such vessels which undermine the effectiveness of subregional or regional conservation and management measures.⁵⁷

UNFSA also describes similar provisions for 'fishing entities' that encourage UNFSA and RFMO parties to request fishing entities to cooperate with RFMO measures, and link the benefits available to fishing entities to their compliance with such measures.⁵⁸

The WCPF Convention builds on these provisions and requires (amongst other things) that each WCPFC member request the cooperation of non-members to fully implement WCPFC conservation measures and take measures (consistent with the LOSC, UNFSA and international law) to deter the activities of non-members which undermine the effectiveness of its conservation and management measures.⁵⁹

⁵³ UNFSA – Article 17.

⁵⁴ UNFSA binds an additional 13 UNFSA parties with no record of WCPO tuna fishing to implement WCPFC conservation and management measures.

⁵⁵ Bolivia, Cambodia, Hong Kong, Cuba, Ecuador, El Salvador, Georgia, Guatemala, Honduras, Mexico, Netherlands Antilles, Panama, Peru, Sierra Leone, Singapore, St Vincent, Thailand and Venezuela.

⁵⁶ UNFSA – Article 17.4.

⁵⁷ *Ibid.*

⁵⁸ UNFSA – Article 17.3.

⁵⁹ WCPFC – Article 32.

On the flip side, it is important to note that UNFSA also obliges RFMOs to operate in a non-discriminatory and transparent manner and open their membership to States with a 'real interest' in the RFMO's fisheries.⁶⁰ While, the definition of 'real interest' is unclear, the general view is that the concept of real interest should not be interpreted in an exclusive manner.⁶¹ Adjacent coastal States and states fishing for stocks on the high seas inside the area in question are generally regarded as having a real interest and therefore have a right to participate in the relevant RFMOs, and a duty to cooperate.⁶² In some cases, a State may be able to demonstrate a real interest without any previous fishing history,⁶³ while some regional organisations do not even require a fishing interest.⁶⁴

The WCPF Convention offers little guidance on the definition of real interest. Instead, the WCPFC relies on Conservation and Management Measure (CMM) 2004-02⁶⁵ (supported by the general text of the WCPF Convention and its Rules of Procedure) which provides criteria for the consideration of applications by non-members to become cooperating non-members. This requires that applicants submit a written request to the Executive Director and address certain criteria.⁶⁶ Paragraph 5 of CMM 2004-02 specifies the following factors to be taken into account in considering such requests:

- the views of the applicant on ratification of, or accession to, the Convention;
- the status of the stocks and the existing level of fishing effort in the fishery; and
- its record of compliance with WCPFC and other RFMO conservation and management measures, and the provisions of the WCPF Convention.

⁶⁰ UNFSA – Article 8.

⁶¹ Molenaar, E. J. 'The Concept of 'Real Interest' and Other Aspects of Cooperation through Regional Fisheries Management Mechanisms' in *The International Journal of Marine and Coastal Law*, Vol. 15, No. 4, 2000.

⁶² *Ibid.*

⁶³ For example, New Zealand and the Cook Islands are cooperating non-contracting parties to the North East Atlantic Fisheries Commission (NEAFC) despite neither holding an Atlantic coastline or extensive fishing history.

⁶⁴ For example, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is open to any State engaged in harvesting or research activities for the marine resources of relevance to CCAMLR.

⁶⁵ WCPFC Conservation Measure CMM 2004-02 Cooperating Non-Members, WCPFC, 2004, cited 28 March 2008. <http://www.wcpfc.int/>

⁶⁶ WCPFC CMM 2004-02 requires that CNM applications be submitted at least 90 days prior to a WCPFC annual meeting and, amongst other things: indicate views on accession to the Convention; commit to cooperate fully in the implementation of WCPFC conservation measures; commit to ensure that their fishing vessels and to the greatest extent possible, their nationals, comply with WCPFC provisions and measures; submit full data and details on its historical and current fisheries in the Convention Area; and submit results from relevant research programmes.

If successful, cooperating non-members are entitled to participate in meetings of the Commission and its subsidiary bodies as observers.⁶⁷ Paragraph 7 of CMM 2004-02 imposes some financial obligations on cooperating non-members which are invited to make a contribution commensurate with the benefits they enjoy from participation in the fishery. The status must be re-applied for on an annual basis and continuation of the status is subject to their compliance with the Convention's objectives and requirements.⁶⁸

Although originally intended as a transitory phase on the way to full membership, cooperating non-member status is a clever mechanism that can address the issue of non-members in an ongoing manner, and resolve an inconsistency between the WCPF Convention text (and its associated Rules of Procedure and CMMs) and the views expressed throughout the MHLC and held today by many within the WCPFC.

On the one hand, the WCPF Convention and its documents describe an open organisation that invites non-members to cooperate and join in its management of the migratory fish stocks. For example, CMM 2004 -02 builds on inclusive principles described in UNFSA⁶⁹ and WCPFC⁷⁰ to engage non-parties and fishing entities:

The Executive Director shall contact each year all non-members whose vessels fish in the Convention Area for species under the Commission's competence to urge them to become a member of the Commission or to apply for the status of Cooperating non-member...⁷¹

On the other hand, many within the WCPFC membership view the WCPFC as an exclusive organisation and refer back to the 1999 MHLC resolution that sought to restrict membership in the WCPFC. They note that the WCPF Convention differentiates between MHLC participants (such as Indonesia) who can accede to the WCPF Convention at any time and non-MHLC participants (such as Belize) who must be invited to become a member by consensus of WCPFC members.⁷²

The cooperating non-member status offers a mechanism to bridge this gap and engage non-members at arms length, binding these States to the WCPFC conservation measures without muddying the waters of decision making by granting full voting rights. While cooperating non-members are still non-parties in the traditional sense of international law, their commitment (expressed through their application) to be bound by the WCPFC and its conservation

⁶⁷ WCPFC CMM 2004-02 Paragraph 6- CNMs come under Rule 36(d) of the Commission's Rules of Procedure.

⁶⁸ WCPFC CMM 2004-02 Paragraph 4.

⁶⁹ UNFSA Article 17.3.

⁷⁰ WCPFC Article 32.4.

⁷¹ WCPFC CMM 2004-02 Paragraph 12.

⁷² WCPFC – Article 35.

measures means in practice that they carry the same obligations as members without all of the rights, such as full participation in decision making.

While there is little guidance on what defines real interest, both UNFSA and the WCPFC are more helpful when it comes to the question of the participatory rights for cooperating non-members. UNFSA describes the following criteria⁷³ to be taken into account when determining the nature and extent of participatory rights for new participants and requires that their application be non-discriminatory:⁷⁴

- the status of the fish stocks and existing levels of effort in the fishery;
- the respective interests, fishing patterns and practices of new and existing members;
- the respective contributions of new and existing members to the conservation and management of the stocks and to the collection and provision of data and the conduct of scientific research on the stocks;
- the needs of coastal fishing communities dependent mainly on fishing for the stocks;
- the needs of coastal States whose economies are overwhelmingly dependent on the exploitation of living marine resources; and
- the interests of developing States from the sub-region or region in whose areas of national jurisdiction the stocks also occur.

The WCPFC does not describe criteria relating to the participatory rights of cooperating non-members but does require that the WCPFC shall be interpreted and applied in the context of and in a manner consistent with UNFSA and the LOSC.⁷⁵ Furthermore, the WCPFC states that the Commission shall agree on the means by which the fishing interests of any new member may be accommodated⁷⁶ and that:

...co-operating non-parties to this Convention shall enjoy benefits from participation in the fishery commensurate with their commitment to comply with, and their record of compliance with, conservation and management measures in respect of the relevant stocks.⁷⁷

In summary, UNFSA and WCPFC provide a comprehensive management framework that is now binding on 50 out of the 65 States listed in Annex A (i.e. those who have participated in WCPO fisheries). This framework provides a process for the WCPFC to engage non-members with a real interest (to be interpreted in a non-exclusive manner) in the implementation of WCPFC conservation measures through their participation as cooperating non-members.

⁷³ UNFSA – Article 11.

⁷⁴ UNFSA – Article 8.3.

⁷⁵ WCPFC – Article 4.

⁷⁶ WCPFC – Article 10.

⁷⁷ WCPFC – Article 32.4.

In return, the WCPFC is obliged to treat all States with a real interest in a non-discriminatory and open manner.

States and Entities with a History of Participation in the WCPO Tuna Fisheries

An analysis of fishing vessel activity within the WCPO tuna fisheries identifies 65 States and entities that might conceivably hold a real interest and wish to cooperate with the WCPFC.⁷⁸ This analysis is presented in Annex A. The analysis presented in Table 1 used the WCPFC definition of ‘fishing vessels’ and included all support vessels (i.e. carriers and bunkers) on the basis that the effectiveness of the WCPFC will, in part, depend upon its ability to control and monitor such vessels. The analysis reviewed the following databases:

- the FFA Vessel Registry of Good Standing;⁷⁹
- the WCPFC Record of Fishing Vessels (includes fishing vessels as defined under the WCPF Convention (i.e. purse seine, carriers, bunkers, etc),⁸⁰
- the WCPFC Temporary Register of Fish Carriers and Bunkers (only includes carrier and bunker vessels flagged to non-members),⁸¹
- the WCPFC 2006 Tuna Fishery Yearbook;⁸² and
- the WCPFC IUU Vessel List 2007.⁸³

⁷⁸ The analysis assumes that vessels on these lists have actually been involved in fishing activities (as defined by the WCPFC/ or in WCPF Convention). This is a reasonable assumption for the FFA Register where a significant fee is charged for each vessel on the list, and similarly for the historical data for the WCPFC yearbook given that these countries have submitted some form of catch data in support of the vessel numbers. This is also a reasonable assumption for the WCPFC Temporary Register of Fish Carriers and Bunkers where States have specifically requested that these vessels be exempt from the WCPFC prohibition on non-WCPFC Record of Fishing Vessels and similarly for vessels on the IUU list given the process required by the WCPFC before a vessel can be recorded on this list. But it is possible that the WCPFC Record of Fishing Vessels may significantly overstate the number of vessels actually fishing. Some vessels may be listed on the chance that they might fish in the WCPO. It is likely therefore that some States identified on the WCPFC registers have less active fishing capacity than indicated. However, while the vessel numbers may be questionable, this should not falsely indicate States and entities participating in the region as the WCPFC Record of Fishing Vessels only includes WCPFC members and CNMs that have a history of participation and/or are coastal States. This vagueness was discussed by the WCPFC in 2007 which agreed to amend the record in future to clarify which vessels were actively fishing. For the purposes of this study however, it relies on the existing WCPFC record which does not specifically identify active vessels.

⁷⁹ FFA, *Forum Fisheries Agency Vessel Registry of Good Standing*, cited 1 December 2007, FFA, Honiara, 2007.

⁸⁰ WCPFC, *Western and Central Pacific Fisheries Commission Record of Fishing Vessels*, 2008, cited 25 March 2008. <http://www.wcpfc.int/vrecord/search.php>

⁸¹ WCPFC, *WCPFC Temporary Register of Fish Carriers and Bunkers* (only includes carrier and bunker vessels flagged to non-members.), 2008, cited 25 March 2008. <http://www.wcpfc.int/pdf/WCPFC%20Temporary%20Register%20of%20Fish%20Carriers%20and%20Bunkers%20%20Mar08.pdf>

⁸² Lawson, T. (ed) *Western and Central Pacific Fisheries Commission Tuna Fishery Yearbook 2006*, WCPFC, Pohnpei, 2007, cited 25 March 2008. <http://www.wcpfc.int>

⁸³ WCPFC, *WCPFC IUU Vessel List 2007*, cited 28 March 2008. <http://www.wcpfc.int/mcs/pdf/WCPFC%20IUU%20Vessel%20List%207%20Dec%202007.pdf>

It is important to note that this analysis only includes flag States that have reported either to the WCPFC, the Secretariat of the Pacific Community (SPC)⁸⁴ or the FFA. It is possible that there are additional flag States with vessels fishing in the WCPO which have not reported to these databases. For example, within the limitations of this study, the only evidence that Venezuela has participated in the WCPO tuna fisheries is the listing of two of its vessels on the WCPFC Illegal, Unreported and Unregulated (IUU) Vessel List.⁸⁵ For the purposes of this analysis, participation includes adjacent coastal States and flag States and entities that have reported vessels as catching fish or supporting fishing activities within the WCPO tuna fisheries. This interpretation was taken due to the vagueness of the term 'real interest', its generally non-exclusive interpretation, and to ensure a non-discriminatory and consistent approach.⁸⁶

⁸⁴ The SPC compiles the Tuna Fishery yearbook.

⁸⁵ WCPFC, WCPFC IUU Vessel List 2007, cited 28 March 2008.

http://www.wcpfc.int/mcs/pdf/WCPFC%20IUU%20Vessel%20List_7%20Dec%202007.pdf Analysis of port and market data and national licensing lists from coastal States could identify additional flag States that may not have reported. It is worth noting that Vanuatu and Kiribati informed the 4th Session of the WCPFC in 2007 that vessels from Senegal, El Salvador, Panama and Ecuador had held licences to fish within their EEZs in 2006 and/or 2007. These vessels had not previously been reported to the SPC, WCPFC or FFA. WCPFC, *Summary Report*, 2007.

⁸⁶ It is noted that this analysis includes flags of convenience with little genuine link with the vessel.

Table 1: States that have reported participation in WCPO tuna fisheries.

Directly Regulated WCPFC Members or Cooperating non-member ⁸⁷			Unregulated Neither Party to WCPFC or UNFSA	
1	Australia	Member 2003	1	Bolivia
2	Belize	CNM 2007	2	Cambodia
3	Canada	Member 2005	3	Hong Kong
4	China	Member 2004	4	Cuba
5	Chinese Taipei	Member 2004	5	Georgia
6	Cook Islands	Member 2003	6	Guatemala
7	Ecuador	CNM 2008	7	Honduras
8	El Salvador	CNM 2008	8	Netherlands Antilles
9	Estonia	EC Member	9	Panama
10	European Community	Member 2004	10	Peru
11	Fed. States Micronesia	Member 2002	11	Sierra Leone
12	Fiji	Member 2001	12	Singapore
13	France	Member 2005	13	St Vincent
14	Indonesia	CNM 2004	14	Thailand
15	Isle of Man	EC Member	15	Venezuela
16	Japan	Member 2005		
17	Kiribati	Member 2003		
18	Korea	Member 2004		
19	Latvia	EC Member		
20	Lithuania	EC Member		
21	Malta	EC Member		
22	Marshall Islands	Member 2001		
23	Mexico	CNM 2008		
24	Nauru	Member 2003		
25	Netherlands	EC Member		
26	New Zealand & Tokelau	Member 2003		
27	Niue	Member 2003		
28	Palau	Member 2005		
29	Papua New Guinea	Member 2001		
30	Philippines	Member 2005		
31	Poland	EC Member		
32	Samoa	Member 2001		
33	Senegal	CNM 2008		
34	Solomon Islands	Member 2003		
35	Spain	EC Member		
36	Tonga	Member 2003		
37	Tuvalu	Member 2004		
38	United Kingdom	EC Member		
39	United St. America	Member 2007		
40	Vanuatu	Member 2005		
Indirectly Regulated Non-party or Cooperating non-member to WCPFC ... but, Party to UNFSA ⁸⁸				
1	Bahamas	Party 1997		
2	Cyprus	Party 2002		
3	Guinea	Party 2005		
4	India	Party 2003		
5	Liberia	Party 2005		
6	Maldives	Party 1998		
7	Russia	Party 1997		
8	Seychelles	Party 1998		
9	Sri Lanka	Party 1996		
10	Ukraine	Party 2003		

⁸⁷ WCPFC, *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 5th Regular Session, Summary Report*, Korea, 8-12/12 2008.

⁸⁸ United Nations, *Status of the United Nations Convention on the Law of the Sea, of the Agreement Relating to the Implementation of Part XI of the Convention and of the Agreement for the Implementation of the Provisions of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, United Nations, 1 February 2008, cited 2 April 2008. http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm

50 of the 65 States and entities identified in Table 1 are either WCPFC and/or UNFSA parties or cooperating non-members and therefore obliged to implement WCPFC measures. Fourteen States and one entity are not party to either and are effectively unregulated and free to fish the high seas unless they choose to join the WCPFC as a cooperating non-member.

Stalemate - New Entrants and the WCPFC in December 2007

The issue of participatory rights for non-members was a key point of discussions at the 3rd and 4th meetings of the WCPFC in 2006 and 2007. The matter came to a head in December 2007 when New Zealand and some Pacific Island States opposed some applications (Ecuador, El Salvador and Senegal) for cooperating non-member status in a complex and chaotic discussion.⁸⁹ They suggested that, if successful, these applications could increase capacity at a time when the WCPFC was focusing on the need to cut effort and catches. They expressed concern regarding the level of participatory rights that new entrants could hold and suggested that participatory rights should be defined individually at the time of application.⁹⁰ Some States also raised concerns regarding the past compliance record of the applicants and suggested that citizens from existing WCPFC members were exploiting non-member flags of convenience to avoid fishing limits on existing members and expand their fishing effort.⁹¹

The WCPFC legal counsel advised that there was no basis under WCPFC procedures for differential treatment of newly admitted cooperating non-members in regard to their participatory rights, unless the applicant agreed to such treatment.⁹² The legal counsel advised that the applications complied with the information requirements established by CMM 2004-02, but they could not advise on the quality of the data presented.⁹³

The WCPFC accepted Belize as a cooperating non-member after Belize agreed to voluntarily limit its participatory rights in the WCPO tuna fisheries. However, some members continued to oppose other applications on various grounds, including concerns regarding further capacity migration into the WCPO tuna fisheries. The applications from Ecuador, El Salvador and Senegal were subsequently rejected. Kiribati immediately requested an exemption to allow it to continue authorising vessels from the non-members El Salvador, Ecuador and (non applicant) Panama to fish within its EEZ in a manner otherwise consistent with the relevant WCPFC measures. The WCPFC approved the request and granted a one year exemption that allowed Kiribati to license six Ecuadorian, one Panamanian and two El Salvadoran purse seiners to

⁸⁹ WCPFC, *Summary Report*, 2007.

⁹⁰ *Ibid.*

⁹¹ *Ibid.*

⁹² *Ibid.*

⁹³ *Ibid.*

fish within the Kiribati EEZ. The Chair requested Kiribati ensure these vessels do not fish on the high seas.⁹⁴

Because of this refusal, the WCPFC relied on a tenuous thread of control through Kiribati for vessels from El Salvador, Ecuador and Panama. Kiribati, a small island developing State, was expected to enforce and monitor a high seas prohibition on vessels flagged to a foreign State with no implementing infrastructure or institutions (such as a binding international agreement).

The 2007 outcome was particularly problematic in regard to Senegal. Senegal is party to UNFSA but not a member of the WCPFC. As an UNFSA party, Senegal was obliged to implement WCPFC conservation measures and its MCS provisions for its flagged vessels fishing for tuna in the WCPO, regardless of its status within the WCPFC. On the other hand, the WCPFC is obliged by its own convention and UNFSA to engage non-members with a real interest in an open and non-discriminatory manner. Senegal has a history of participating in the WCPO fisheries as a fishing flag State and attempted to join the WCPFC as a cooperating non-member. Given current practice in other RFMOs, Senegal could have argued that it has a real interest in the WCPO tuna fisheries and has attempted to cooperate. Senegal potentially had legal grounds to argue that the WCPFC has acted in breach of its obligations regarding non-members and consequently Senegal could potentially have ignored, at least partially, WCPFC conservation measures.⁹⁵ At the very least, it would have been within Senegal's rights under the LOSC, UNFSA and WCPFC to continue fishing on the high seas within the limits set by the WCPFC conservation measures so long as it reported data to the WCPFC secretariat. For example, given the minimal controls and limits that the WCPFC has implemented, this would effectively have allowed Senegalese longliners to catch up to 2000 tonnes of bigeye.

Furthermore, deterrence measures against non-members (such as Senegal following its 2007 rebuffal) can only be triggered against those who have refused to cooperate with the RFMO through membership, participation in the work of the RFMO or agreement to comply with the conservation measures established by the RFMO.⁹⁶ It appears that vessels flagged to Senegal and other non-members have not breached any WCPFC conservation measures (other than WCPFC CMM 2004-01)⁹⁷ nor has there been adequate investigation of potential breaches of conservation measures.

⁹⁴ *Ibid.*

⁹⁵ Molenaar, E. J. 2000. Molenaar argues that a rebuffed State would have legal grounds to ignore RFMO management measures if the rebuff was inconsistent with Article 8.3 of UNFSA.

⁹⁶ UNFSA – Article 17.4.

⁹⁷ CMM 2004-01 (Record of Fishing Vessels and Authorization to Fish) requires that only fishing vessels on the WCPFC Record of Fishing Vessels can be authorised to fish in the Convention Area, and that members shall prohibit landings at their ports or transshipments to their vessels by vessels not entered on the Record. However, only vessels flagged to members or CNMs may be listed on the Record. This effectively means that all non-member vessels cannot be listed on the Record, and therefore by implication are engaged in IUU fishing and cannot unload in WCPFC ports or tranship

Following the 2007 meeting, it was difficult to see how the WCPFC could effectively control fishing vessels from non-members if the WCPFC refused to cooperate with them. This was particularly problematic as the WCPFC appeared to be years away from any catch and market scheme that might indirectly address unregulated fishing in a similar manner to other RFMO's approaches to addressing unregulated fishing by non-members.

Maximising Control and Cooperation of Non-Members

A more effective strategy is required that recognises the political realities at sea and the international legal framework, and offers incentives to non-members to cooperate with the WCPFC. In this regard, the WCPFC would likely achieve a higher level of compliance with its conservation measures if it encouraged cooperation by non-members through their participation in the WCPFC as cooperating non-members (as it is required to do anyway). This strategy would bind non-members to WCPFC conservation measures and enable the WCPFC to control fishing capacity and effort. This middle ground best balances the practical need to engage these flag States in the WCPFC with the desire of existing WCPFC members to limit future participatory rights and ensure that the membership of the WCPFC does not increase significantly beyond current numbers (with the consequent increase in decision making complexities and difficulties).

Such an approach could broadly outline the participatory rights available in the fishery in accordance with the UNFSA criteria, particularly relating to sustainability and the special interests of coastal and developing States. In this context, the responses of the Northwest Atlantic Fisheries Organisation (NAFO) and the North East Atlantic Fisheries Commission (NEAFC) to new entrants, such as New Zealand and the Cook Islands, offer a useful precedent. The WCPFC could consider treating non-members from a distant corner of the globe in the same way that the distant corner of the globe has treated Pacific States.

The NAFO adopted a resolution in 1999 that advised aspiring new members that 'stocks managed by NAFO are fully allocated, and fishing opportunities for new members are likely to be limited, for instance, to new fisheries (stocks

with WCPFC members. IUU listing of non-member vessels on the grounds that such vessels are not on the Record could be inconsistent with international law. Non-members do not automatically lose their legal right to fish in the WCPO tuna fisheries by virtue of their non-membership. Provided such non-members discharge their duty to cooperate with the Commission, their fishing activities on the high seas in the Convention Area could be considered to be within their rights (see legal counsel comments in WCPFC *Summary Report*, 2007). The listing of non-member vessels on the IUU list solely because they are not on the Record could be considered to be discriminatory and a denial of the right to fish on the high seas (as only member or CNM vessels can be listed on the Record, but such States cannot easily become CNMs or members).

not currently allocated by TAC/quota or effort control.)⁹⁸ Similarly, the NEAFC adopted Guidelines for the Expectation of States Considering applying for Membership of NEAFC and Possible Fishing Opportunities in the NEAFC Regulatory Area and similarly noted that fishing opportunities for new members are likely to be limited to new fisheries.⁹⁹

In 2006, a performance review of NEAFC noted the difficulties it experienced in determining participatory rights for new entrants in fisheries that are fully or over-exploited. The review panel¹⁰⁰ considered the guidelines and rules governing applications for co-operating non-contracting party status were appropriate and properly implemented.

In 2007, NEAFC adopted Recommendation VIII:2008 on fishing for orange roughy within the NEAFC Regulatory Area. This recommendation prohibited targeted fishing for orange roughy in certain sub-areas and only allowed directed fishing for orange roughy in other sub-areas under specified conditions. These conditions included a restriction on fishing activities only to vessels from NEAFC contracting parties that have already participated in the orange roughy fishery in these other sub-areas prior to 2005.¹⁰¹ This limited the participatory rights of non-members and new entrants. The Cook Islands noted this in a statement to NEAFC opposing the decision and expressing its disappointment.¹⁰²

The NAFO and NEAFC strategies recognise that RFMOs have a responsibility to open their doors to all States with a real interest in the fisheries in question, and need to effectively control all vessels fishing within their regulatory area to ensure full implementation of conservation measures. Consequently, NAFO and NEAFC do not deliberately exclude non-members from cooperating or participating in their organisations. However, their resolutions make it very clear that participatory rights within the fishery will be, and are limited.

⁹⁸ NAFO, *Resolution of the General Council of NAFO, Adopted on 17 September 1999, To Guide the Expectations of New Members with Regard to Fishing Opportunities in the NAFO Regulatory Area*, (1/99), Dartmouth, Nova Scotia, Canada, 2006.

⁹⁹ NEAFC, *Guidelines for the Expectation of States Considering applying for Membership of NEAFC and Possible Fishing Opportunities in the NEAFC Regulatory Area*, 2003. http://www.neafc.org/reports/annual-meeting/am_2003/docs/2003_45.doc

¹⁰⁰ The Review Panel was nominated by Canada, the UN Food and Agriculture Organisation (FAO) and the UN Division for Ocean Affairs and the Law of the Sea (DOALOS). It comprised Michael Arbuckle, Bruce Atkinson and Valentina Germani.

¹⁰¹ NEAFC, *Report of the 26th Annual Meeting of the North-East Atlantic Fisheries Commission*, 12-16 November 2007, Volume II – Annexes 1, NEAFC Headquarters, London, 2007, cited 1 April 2008. http://www.neafc.org/reports/annual-meeting/docs/26neafc_annual_2007_vol2_annexes.pdf

¹⁰² NEAFC, *Report of the 26th Annual Meeting of the North-East Atlantic Fisheries Commission*, 12-16 November 2007, Volume I, NEAFC Headquarters, London, 2007, cited 1 April 2008. http://www.neafc.org/reports/annual-meeting/docs/26neafc_annual_2007_vol1_main-report.pdf

Resolution - New Entrants and the WCPFC in December 2008

In 2008, Ecuador, El Salvador, Mexico and Senegal again applied for cooperating non-member status to the WCPFC, while Belize and MHLC participant, Indonesia, applied for their status to be continued. Following the unsatisfactory outcome in 2007, the Chair proposed that resolving these issues would be one of four priorities for the 2008 Commission.

During the confused discussions in 2007, it became clear that some members appeared to misunderstand or misrepresent the rights and responsibilities of non-members and the WCPFC itself. In 2008, the Chair of the Commission requested the legal counsel to present a summary of the legal rights and responsibilities relating to non-members, cooperating non-members and the WCPFC. The legal counsel noted that the participatory rights of cooperating non-members were limited by the CMMs implemented by the WCPFC. The legal counsel suggested that the cooperating non-member status offered a useful tool for members of the Commission to control the activities of non-parties and their vessels fishing in the Convention Area and that this status did not necessarily grant participatory rights on the high seas and might only allow rights to purchase access from coastal State members to fish within their EEZs. In this light, the legal counsel noted that non-cooperating non-members have more flexibility to fish on the high seas in the Convention Area than cooperating non-members.¹⁰³

The legal counsel's presentation greatly clarified the issues relating to participatory rights and reassured many members, particularly those from the FFA bloc, that granting cooperating non-member status to new entrants would not immediately grant them historical fishing rights or an unlimited freedom to fish. Rather, it quickly became clear that it was in the interests of existing WCPFC members to include these new entrants within the WCPFC to ensure their cooperation and limit the growth of their fishing fleets.¹⁰⁴

Throughout the following week, the Commission quickly approved the applications from Indonesia and Belize and then worked through the outstanding applications from the other applicants. Discussions with the applicants clarified their fishing activities in relation to existing conservation measures and confirmed their agreement that they would abide by the limits established by these measures, as specified in the meeting record. These discussions progressed remarkably smoothly given the experiences in 2007, except for the application from Ecuador. Examination of the data provided by Ecuador raised concerns from the USA that Ecuadoran vessels had been fishing

¹⁰³ Tsamenyi, M. *Co-operating Non-Members*, Powerpoint presentation to informal side-meeting of the Western and Central Pacific Fisheries Commission, 6 December 2008, Busan, Korea.

¹⁰⁴ Author's notes – 2008. Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Fifth Regular Session. 8 - 12 December 2008, Korea.

illegally within their waters in 2007 and 2008. The USA opposed the Ecuadoran application unless the matter could be resolved to their satisfaction. Subsequent discussions approved a conditional granting of cooperating non-member status to Ecuador, subject to their provision of adequate data to the satisfaction of the USA by the 15 February 2009. Failing this, Ecuador's cooperating non-member status would be null and void, but Kiribati, Nauru and Tuvalu would be granted an exemption allowing them to license seven Ecuadoran vessels to fish within their EEZs. As in 2007, this exemption required that these vessels not be allowed to fish on the high seas within the Convention Area. Furthermore, the exemption required that no other Ecuadoran vessels be allowed to fish on the high seas, following an admission from Ecuador that non-licensed fishing vessels had continued to fish in the high seas of the WCPO after its 2007 application had been refused.

Simultaneously, the Commission addressed the process issues to ensure future applications are considered consistently and transparently. As noted earlier, CMM 2004-02 offers little guidance in regard to the issue of participatory rights and was originally negotiated to enable MHLC participants who had not yet ratified the WCPF Convention to remain engaged in the WCPFC while their national governments processed their ratifications. Since then, requirements have changed as 'new entrants' increasingly express interest in participating in the WCPO tuna fisheries.

In response to these changing circumstances and the requirements for a more transparent and consistent approach, the WCPFC adopted a revised conservation measure governing the process of considering cooperating non-member applications from 2009 onwards.¹⁰⁵ This revised measure provided explicit and transparent criteria for evaluating applications and provisions from UNFSA relating to the granting of participatory rights.

Conclusion

The outcomes of the WCPFC meetings in 2006 and 2007 were effectively a refusal to cooperate with non-members and an ineffectual request that they do not fish within the WCPO tuna fisheries. This undermined the ability of the WCPFC to implement its conservation measures and allowed these non-members to continue fishing within the WCPO high seas as permitted by the LOSC and the 1969 Vienna Convention.

In 2008, the WCPFC addressed many of its members' concerns and responded to new entrants in a far more transparent and inclusive manner. This response recognised the interests and rights of non-members, and maximised their cooperation in such a manner as to enable control of their relevant fishing vessels within the WCPF Convention Area. This improved the ability of the

¹⁰⁵ WCPFC Conservation Measure CMM 2008-02, Cooperating non-members, WCPFC, 2008.

WCPFC to limit capacity and effort to sustainable levels. The amendments to CMM 2004-02 provide a way forward for the WCPFC to continue to address the issue of new entrants and the threat posed by capacity migration while protecting the special interests of coastal and developing States.

Annex A - Table 2: Participation in WCPO fisheries

State			Participation in WCPFC fisheries					WCPFC Status MHLC & Prep Con history	
			1996-07 FFA Register History ¹⁰⁶	2008 WCPFC Register ¹⁰⁷	2008 WCPFC Temp Register ¹⁰⁸	WCPFC 2006 Yearbook ¹⁰⁹ - Year of 1 st report; - No. of vessels in 2006.			
						LL	PS		P&L
1	Australia	Coastal State Fishing Flag State	1996-06: Fishing Vessels	202 vessels	--	1985 80 vessels	1978 3 vessels	1976 --	Member 2003
2	Bahamas	Carrier Flag State	1996-00: Carrier Vessels	--	4 Carriers	--	--	--	Non-Member
3	Belize	Fishing Flag State Carrier Flag State	1998-07: Fishing & Carrier Vessels	1 vessels	2 Carriers	--	--	--	CNM 2007
4	Bolivia	Fishing Flag State	2002: Fishing Vessels	--	--	--	--	--	Non-Member
5	Canada	Fishing Flag State	2001-02: Fishing Vessels	2,884 vessels	--	--	--	--	Member 2005
6	Cambodia	Fishing Flag State Carrier Flag State	2001-02: Fishing & Carrier Vessels	--	3 Carriers	--	--	--	Non-Member
7	China	Fishing Flag State Carrier Flag State	1996-07: Fishing & Carrier Vessels	229 vessels	--	1988 157 vessels	2001 9 vessels	--	Member 2004 (not including Hong Kong SAR)
8	Hong Kong SAR	Carrier Flag State	2000-02: Carrier Vessels	--	--	--	--	--	Non-Member
9	Chinese Taipei	Fishing Flag Entity Carrier Flag Entity	1996-07: Fishing & Carrier Vessels	1,991 vessels 1 vessel on IUU list	--	1964 ¹¹⁰ 117 vessels 1,630 vessels	1983 34 vessels	--	Member 2004
10	Cook Islands	Coastal State Fishing Flag State	2000-07: Fishing Vessels	30 vessels	--	1994 30 vessels	--	--	Member 2003
11	Cuba	Carrier Flag State	1996-97: Carrier Vessels	--	--	--	--	--	Non-Member
12	Cyprus	Carrier Flag State	1996-07: Carrier Vessels	--	2 Carriers	--	--	--	Non-Member
13	Ecuador	Fishing Flag State	1999-03 & 2007: Fishing Vessels	6 vessels	--	--	--	--	Non-Member MHLC Observer. PrepCon Observer. Failed CNM in 2007.
14	El Salvador	Fishing Flag State	2001-03: Fishing Vessels	2 vessels	--	--	--	--	Non-Member Failed CNM in 2007.
15	Estonia	Fishing Flag State	1999-04: Fishing Vessels	--	--	--	--	--	EC Member
16	European Community	Members include: Coastal, Fishing & Carrier Flag States	N/A	121 vessels ¹¹¹	Not applicable ¹¹²				Member 2004

¹⁰⁶ FFA, FFA Vessel Registry of Good Standing, FFA, Honiara, cited 1 December 2007.

¹⁰⁷ WCPFC, Western and Central Pacific Fisheries Commission Record of Fishing Vessels, 2008, cited 25 March 2008. <http://www.wcpfc.int/vrecord/search.php>. Includes all fishing vessels as defined under the WCPF Convention (ie purse seine, carriers, longline, bunkers etc).

¹⁰⁸ WCPFC, WCPFC Temporary Register of Fish Carriers and Bunkers (only includes carrier and bunker vessels flagged to non-members.), 2008, cited 25 March 2008.

http://www.wcpfc.int/pdf/WCPFC%20Temporary%20Register%20of%20Fish%20Carriers%20and%20Bunkers_20%20Mar08.pdf

¹⁰⁹ Lawson, T. (ed) Western and Central Pacific Fisheries Commission Tuna Fishery Yearbook 2006, WCPFC, Pohnpei, 2007, cited 25 March 2008. <http://www.wcpfc.int>

¹¹⁰ Chinese Taipei reports 117 Distant Water Fishing Vessels plus 1,630 Offshore Domestic Vessels.

¹¹¹ Authorised vessels are reported on WCPFC registry in EU aggregated form, rather than individually.

¹¹² Reports to SPC (for WCPFC Yearbook) are provided at national level by individual EC members.

State	Participation in WCPFC fisheries						WCPFC Status	
	1996-07 FFA Register History	2008 WCPFC Registers	2008 WCPFC Temp Carrier Register	WCPFC 2006 Yearbook				
				Long line	Purse seine	Pole & Line		
17 Fed. States Micronesia	Coastal State Fishing Flag State	1996-07 Fishing Vessels	27 vessels	--	1991 7 vessels	1991 3 vessels	--	Member 2002
18 Fiji	Coastal State Fishing Flag State	1996-07 Fishing Vessels	38 vessels	--	1989 80 vessels	--	1976 1 vessel	Member 2001
19 France	Coastal State Fishing Flag State	--	--	--	1983 92 vessels ¹¹³	--	1980 52 vessels	Member 2005
20 Georgia	Fishing Flag State	2002-04 Fishing Vessels	--	--	--	--	--	Non-Member
21 Guatemala	Fishing Flag State	1999-01 Fishing Vessels	--	--	--	--	--	Non-Member
22 Guinea	Fishing Flag State	1999-04 Fishing Vessels	--	--	--	--	--	Non-Member
23 Honduras	Fishing Flag State Carrier Flag State	1999-04 Fishing & Carrier Vessels	--	--	--	--	--	Non-Member
24 India	Fishing Flag State	2006-07 Fishing Vessels	--	--	--	--	--	Non-Member
25 Indonesia	Coastal State Fishing Flag State Carrier Flag State	1996-07 Fishing & Carrier Vessels	--	--	1985 757 vessels	1986 98 vessels	1985 140 vessels	CNM 2004
26 Isle of Man	Carrier Flag State	--	--	1 Carrier	--	--	--	EC Member (through UK)
27 Japan	Coastal State Fishing Flag State Carrier Flag State	1996-07 Fishing & Carrier Vessels	1,545 vessels	--	1960 ¹¹⁴ 836 vessels 432 vessels 179 vessels	1969 ¹¹⁵ 18 vessels 35 vessels	1960 ¹¹⁶ 252 vessels 139 vessels	Member 2005
28 Kiribati	Coastal State Fishing Flag State Carrier Flag State	1996-07 Fishing & Carrier Vessels	17 vessels	--	1995 --	1994 1 vessel	1979 --	Member 2003
29 Korea	Coastal State Fishing Flag State Carrier Flag State	1996-07 Fishing & Carrier Vessels	276 vessels	--	1960 130 vessels	1980 28 vessels	--	Member 2004
30 Latvia	Carrier Flag State	1998-00 Carrier Vessels	--	--	--	--	--	EC Member
31 Liberia	Carrier Flag State	1996-02 Carrier Vessels	--	--	--	--	--	Non-Member
32 Lithuania	Carrier Flag State	2001-02 Carrier Vessels	--	1 Carrier	--	--	--	EC Member
33 Maldives	Fishing Flag State	1996-98 Fishing Vessels	--	--	--	--	--	Non-Member
34 Malta	Carrier Flag State	1996-04 Carrier Vessels	--	--	--	--	--	EC Member
35 Marshall Islands	Coastal State Fishing Flag State Carrier Flag State	1997-07 Fishing & Carrier Vessels	11 vessels	--	1992 1 vessel	2000 5 vessels	--	Member 2001
36 Mexico	Fishing Flag State	--	Stated to WCPFC4 that it has fished in WCPO since early 1980s ¹¹⁷	--	--	1984 --	--	Non-Member MHLC & PrepCon Observer. Failed request to be PrepCon participant.
37 Nauru	Coastal State	--	--	--	2000 2 vessels	--	--	Member 2003
38 Netherlands	Carrier Flag State	1996-97 Carrier Vessels	--	--	--	--	--	EC Member

¹¹³ France includes vessels from French Polynesia and New Caledonia.

¹¹⁴ Japan reports 836 Coastal LL vessels, 432 Distant Water LL vessels and 179 Offshore LL vessels.

¹¹⁵ Japan reports 18 Coastal purse seine vessels and 35 Distant Water/Offshore purse seine vessels.

¹¹⁶ Japan reports 252 Coastal pole and line vessels + 179 Distant Water/Offshore pole and line vessels.

¹¹⁷ WCPFC4 – 2007 – OP 17. Observer Statement by Mexico to the WCPFC, cited 27 March 2008.

<http://www.wcpfc.int/>

State			Participation in WCPFC fisheries					WCPFC Status MHLC & Prep Con history	
			1996-07 FFA Register History	2008 WCPFC Fishing & Carrier Register	2008 WCPFC Temp Carrier Register	WCPFC 2006 Yearbook			
						Long line	Purse seine	Pole & Line	
39	Netherlands Antilles	Fishing Flag State Carrier Flag State	1999-07: Fishing & Carrier Vessels:	--	3 Carriers	--	--	--	Non-Member
40	New Zealand & Tokelau	Coastal State Fishing Flag State	1996-07: Fishing Vessels:	11 vessels	--	1990 56 vessels	1983 11 vessels	1990 2 vessels	Member 2003
41	Niue	Coastal State	--	--	--	2005 13 vessels	--	--	Member 2003
42	Palau	Coastal State Fishing Flag State	1999-00 & 2002-03: Fishing Vessels:	--	--	1992 --	--	1964 1 vessel	Member 2005
43	Panama	Fishing Flag State Carrier Flag State	1996-07: Fishing & Carrier Vessels:	1 vessel	73 Carriers 7 Bunkers	--	--	--	Non-Member
44	Papua New Guinea	Coastal State Fishing Flag State	1996-07: Fishing Vessels:	33 vessels	--	1993 26 vessels	1994 40 vessels	1970 --	Member 2001
45	Peru	<i>No reports.</i>	--	--	--	--	--	--	Non-Member Failed request to be PrepCon participant.
46	Philippines	Coastal State Fishing Flag State Carrier Flag State	1996-07: Fishing & Carrier Vessels:	577 vessels	--	1982 14 vessels	1980 ¹¹⁸ 164 vessels	-- 11 vessels	Member 2005
47	Poland	Carrier Flag State	1997-98: Carrier Vessels:	--	--	--	--	--	EC Member
48	Russia	Coastal State (?) Carrier Flag State	1996-06: Carrier Vessels:	--	10 Carriers 2 Bunkers	--	1985	--	Non-Member PrepCon & WCPFC Observer. Failed request to be PrepCon participant
49	Samoa	Coastal State	--	--	--	1993 54 vessels	--	--	Member 2001
50	Senegal	Fishing Flag State	2006-07: Fishing Vessels:	--	--	--	--	--	Non-Member. Failed CNM in 2006/07.
51	Seychelles	Fishing Flag State	2001-04: Fishing Vessels:	--	--	--	--	--	Non-Member
52	Sierra Leone	Carrier Flag State	--	--	1 Carrier	--	--	--	Non-Member
53	Singapore	Carrier Flag State	1996-07: Carrier Vessels:	--	1 Carrier 11 Bunkers	--	--	--	Non-Member
54	Solomon Islands	Coastal State Fishing Flag State	1996-07: Fishing Vessels:	--	--	1973 9 vessels	1980 4 vessels	1973 11 vessels	Member 2003
55	Spain	Fishing Flag State	1999-07: Fishing Vessels:	--	--	2004 10 vessels	1999 3 vessels	--	EC Member
56	Sri Lanka	Fishing Flag State	1996-99: Fishing Vessels:	--	--	--	--	--	Non-Member
57	St Vincent	Fishing Flag State Carrier Flag State	1996-07: Fishing & Carrier Vessels:	--	1 Carrier	--	--	--	Non-Member
58	Thailand	Carrier Flag State	--	--	2 Carrier	--	--	--	Non-Member
59	Tonga	Coastal State	--	6 vessels	--	1982 14 vessels	--	--	Member 2003
60	Tuvalu	Coastal State	--	--	--	--	--	1982 --	Member 2004
61	Ukraine	Carrier Flag State	1998-99: Carrier Vessels:	--	--	--	--	--	Non-Member
62	United Kingdom	Coastal State (<i>Pitcairn Island</i>)	--	--	--	--	--	--	EC Member
63	United St. of America	Coastal State Fishing Flag State	1996-07: Fishing Vessels:	453 vessels	--	1960 ¹¹⁹ 154 vessels	1976 13 vessels	1995 ¹²⁰ 5 vessels	Member 2007
64	Vanuatu	Coastal State Fishing Flag State	1996-07: Fishing Vessels:	89 vessels	--	1995 55 vessels	1994 8 vessels	--	Member 2005
65	Venezuela	Fishing Flag State	--	2 Vessels on IUU list ¹²¹	--	--	--	--	Non-Member

¹¹⁸ Philippines reports 160 Domestic PS and ringnet vessels and 11 Distant water PS vessels.

¹¹⁹ United States combines reports from Amer. Samoa (1st report 1996) and Hawaii (1st report 1960).

¹²⁰ United States reports 5 pole and line vessels from Hawaii.

Bibliography

APEC, *Joint Ministerial Statement, 2nd APEC Ocean Related Ministerial Meeting*, Bali, September 2005, cited 26 March 2008. http://www.apec.org/content/apec/ministerial_statements/sectoral_ministerial/ocean-related/2005_ocean-related.html

Bertignac, M., Campbell, H., Hampton, J. and Hand, A. 'Maximising Resource Rent from the Western and Central Pacific Tuna Fisheries' in *Marine Resource Economics*, Vol. 15, 2001, pp. 151-177.

Convention on the Conservation of Antarctic Marine Resources, cited 28 March 2008. http://www.ccamlr.org/pu/e/e_pubs/bd/pt1.pdf

Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (the WCPFC Convention), cited 25 March 2008. <http://www.wcpfc.int/>

Delgado, C., Wada, N., Rosegrant, M., Meijer, S. and Ahmed, M. *Outlook for Fish to 2020: Meeting Global Demand*, International Food Policy Research Institute, Washington, DC, 2003.

FAO, *The State of World Fisheries and Aquaculture 2006*. FAO Fisheries and Agriculture Department, Rome, 2007.

FAO, *Fishing Capacity*, FAO Fisheries and Aquaculture Department, Rome, 2008, cited 26 March 2008. <http://www.fao.org/fishery/topic/2898#container>

FFA, Forum Fisheries Agency Vessel Registry of Good Standing, FFA, Honiara, 2007, Cited 1 December 2007.

Grotius, H. *The Freedom of the Seas*, Oxford University Press, New York, 1604, (translated and published 1916).

Joseph, J. *Managing Fishing Capacity of the World Tuna Fleet*, FAO Fisheries Circular No. 982, FAO, Rome, 2003.

Kompass, T. and Che, T. 'Economic Profit and Optimal Effort in the Western and Central Pacific Tuna Fisheries' in *Pacific Economic Bulletin*, Vol. 21, No. 3, Australian National University, Canberra, 2006.

¹²¹ WCPFC 2007. WCPFC IUU Vessel List 2007. Cited 28 March 2008. http://www.wcpfc.int/mcs/pdf/WCPFC%20IUU%20Vessel%20List_7%20Dec%202007.pdf

Lawson, T. (ed) *Western and Central Pacific Fisheries Commission Tuna Fishery Yearbook 2006*, WCPFC, Pohnpei, 2007, cited 25 March 2008.
<http://www.wcpfc.int>

Molenaar, E. J. 'The Concept of 'Real Interest' and Other Aspects of Cooperation through Regional Fisheries Management Mechanisms' in *The International Journal of Marine and Coastal Law*, Vol. 15, No. 4, 2000.

Molenaar, E. J. 'Participation, Allocation and Unregulated Fishing: The Practice of Regional Fisheries Management Organisations' in *The International Journal of Marine and Coastal Law*, Vol. 18, No. 4, 2003.

Munro, G., Van Houtte, A. and Willmann, R. *The Conservation and Management of Shared Fish Stocks: Legal and Economic Aspects*, FAO Fisheries Technical Paper No. 465, FAO, Rome, 2004.

NAFO, *Resolution of the General Council of NAFO Adopted on 17 September 1999 to Guide the Expectations of New Members with Regard to Fishing Opportunities in the NAFO Regulatory Area (1/99)*, Dartmouth, Nova Scotia, Canada, 2006.

NEAFC, *Report of the 22nd Annual Meeting of the North-East Atlantic Fisheries Commission*, 10 - 14 November 2003, Volume 1, NEAFC Headquarters, London, 2003, cited 1 April 2008.
http://www.neafc.org/reports/annual-meeting/am_2003/docs/2003_45.doc

NEAFC, *Report of the 26th Annual Meeting of the North-East Atlantic Fisheries Commission*, Volume II – Annex 1, NEAFC Headquarters, London, 12-16 November 2007, cited 1 April 2008.
http://www.neafc.org/reports/annual-meeting/docs/26neafc_annual_2007_vol2_annexes.pdf

Shyam, M. 'The Emerging Fisheries Regime: Implications for India' in *Ocean Development and International Law*, No. 8, Taylor and Francis, 1980.

Tsamenyi, M. Co-operating Non-Members, Powerpoint presentation to informal side-meeting of the Western and Central Pacific Fisheries Commission, Busan, Korea, 6 December 2008.

United Nations, *Vienna Convention on the Law of Treaties*, Done at Vienna on 23 May 1969, entered into force on 27 January 1980, United Nations Treaty Series, Vol. 1155, 1969, cited 27 March 2008.
http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf

United Nations, 'United Nations Convention on the Law of the Sea (the LOSC)' in *International Legal Materials*, No. 21, 1982, pp.1261-1354.

United Nations, 'Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks' in *International Legal Materials*, No. 34, 1995.

United Nations, *Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as at 01 February 2008*, Division of Ocean Affairs and the Law of the Sea, United Nations, 2008, cited 27 March 2008.

http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm

United Nations, *Status of the United Nations Convention on the Law of the Sea, of the Agreement Relating to the Implementation of Part XI of the Convention and of the Agreement for the Implementation of the Provisions of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, United Nations, 1 February 2008, cited 2 April 2008.

http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm

WCPFC, *WCPFC Conservation Measure CMM 2004-01 Record of Fishing Vessels and Authorization to Fish*, WCPFC, 2004, cited 28 March 2008.

<http://www.wcpfc.int/>

WCPFC, *WCPFC Conservation Measure CMM 2004-02 Cooperating non-members*, WCPFC, 2004, cited 28 March 2008. <http://www.wcpfc.int/>

WCPFC, *WCPFC Resolution on Reduction of Overcapacity, Resolution 2005-02*, Adopted in December 2005 by the Western and Central Pacific Fisheries Commission, 2005, cited 28 March 2008. <http://www.wcpfc.int/>

WCPFC, *WCPFC IUU Vessel List*, 2007, cited 28 March 2008.

http://www.wcpfc.int/mcs/pdf/WCPFC%20IUU%20Vessel%20List_7%20Dec%202007.pdf

WCPFC4 – 2007 – OP 17, Observer Statement by Mexico to the WCPFC, cited 27 March 2008. <http://www.wcpfc.int/>

WCPFC, *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Fourth Regular Session, Summary Report*, Guam, 2 - 7 December 2007, cited 25 March 2008. <http://www.wcpfc.int/>

WCPFC, Western and Central Pacific Fisheries Commission website homepage, 2008, cited 25 March 2008. <http://www.wcpfc.int>

WCPFC, *Western and Central Pacific Fisheries Commission Record of Fishing Vessels*, 2008, cited 25 March 2008. <http://www.wcpfc.int/vrecord/search.php>.

WCPFC, *WCPFC Temporary Register of Fish Carriers and Bunkers* (only includes carrier and bunker vessels flagged to non-members), 2008, cited 25 March 2008. http://www.wcpfc.int/pdf/WCPFC%20Temporary%20Register%20of%20Fish%20Carriers%20and%20Bunkers_20%20Mar08.pdf

WCPFC, *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Fifth Regular Session. Draft Summary Report*, Korea, 8 - 12 December 2008.

Williams, Peter and Terawasi, Peter. *Overview of Tuna Fisheries in the Western and Central Pacific Ocean, including Economic Conditions – 2007*. Paper presented to the Fourth Regular Session of the Scientific Committee of the Western and Central Pacific Fisheries Commission. 11 - 22 August 2008. Port Moresby, Papua New Guinea. WCPFC-SC4-2008/GN WP-1

11. Allocation Models in the Western and Central Pacific Fisheries Commission and Implications for Pacific Island States

Hannah Parris and Alex Lee¹

Introduction

The Western and Central Pacific Fisheries Commission (WCPFC) is empowered under its Convention² to determine the allocation of fisheries resources for stocks under its management and potential allocation mechanisms have been discussed by WCPFC members on both a formal and informal basis.³ Nevertheless, progress on allocation issues in the WCPFC remains stalled and is likely to remain so for some time as members have recently rejected opportunities to openly discuss allocation in WCPFC sponsored forums.⁴ One reason for this reluctance is political: consideration of allocation explicitly raises difficult issues regarding equity between members and requires active debate on the contentious topic of who should bear the burdens of any reduction in fishing effort or harvests. Another reason is lack of structured concepts about what an allocation regime may look like and what may be the implications for WCPFC members.⁵ This is particularly the case for members of the Forum Fisheries Agency (FFA), some of whom have already received a significant effort-based allocation for the purse seine fleet

¹ The authors would like to thank Steve Shanks, Mike Batty, Quentin Hanich and participants in the FFA Conference on Legal and Policy Trends in the Implementation of International Fisheries Instruments in the Western and Central Pacific Region, 7-9th April 2008, for comments on an earlier version of this chapter. Any mistakes remain those of the authors. All views expressed in this chapter are those of the authors' and do not represent the position of the FFA. Support for this research is gratefully acknowledged from the Australian Research Council, The Bureau of Rural Sciences and the CSIRO "Wealth from the Oceans" Flagship Program.

² Full title is the Convention On The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean (WCPFC) (PITSE 4) Done At Honolulu, Hawaii, 5 September 2000, available at: http://www.pacii.org/cgi-bin/sinodisp/pits/en/treaty_database/2000/4.html?query=Western%20and%20Central%20Pacific%20Fisheries hereafter referred to as the *WCPFC Convention*.

³ Western and Central Pacific Fisheries Commission (WCPFC), *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Third Regular Session, Final Report*, 11 - 15 December 2006, Apia, Samoa, 2006; Marine Resource Assessment Group (MRAG) 2006 *Allocation Issues for WCPFC Tuna Resources: A Report for the WCPFC Secretariat*, 2006, available at www.wcpfc.int

⁴ Government of Japan, Letter from Ministry of Agriculture, Forestry and Fisheries to Executive Secretary of WCPFC, dated 31 August 2007; Australian Government, Email from Department of Agriculture, Fisheries and Forestry to Executive Secretary of the WCPFC, dated 7 September 2007, available at [http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20\[Allocation\].pdf](http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20[Allocation].pdf)

⁵ For example MRAG, 2006 prepared an allocation paper for the third WCPFC annual meeting, but this was considered by FFA countries to insufficiently cover the range of issues associated with allocation, WCPFC, 2006.

through the adoption of the Vessel Day Scheme⁶ (VDS) and, naturally, are reluctant to open discussions on allocations lest they lose political ground.

Although recognizing this reluctance, this chapter argues that the explicit and transparent allocation of tuna resources under the rules of the WCPFC Convention remains a potentially valuable and effective way for the WCPFC to meet its management responsibilities, in particular the sustainable management of stocks, whilst also addressing the aspirations of stakeholders. This chapter aims to address the second issue facing WCPFC stakeholders - lack of appropriate structured models - through the presentation of several alternative allocation models that could form the basis of an allocation debate within the WCPFC. Adopting an explicit “FFA” point of view, these models aim to explore the practical implications of key principles that underpin the FFA positions on allocation by estimating potential shares for FFA States (and other WCPFC members) that could be generated if these principles were used as part of an allocation calculation. Although the WCPFC has allocation powers for all highly migratory species in its Convention Area⁷ the focus here is on the principle tuna species of interest to the FFA (skipjack, yellowfin, bigeye and southern albacore tuna) and on the three main gear types of purse seine, (frozen and fresh) long line and pole and line fleets. The relative performance of each model is then discussed including some potential implications for the existing FFA purse seine treaties.

This chapter is organised in the following way. Section two defines allocation and briefly discusses the role of the WCPFC Convention as a framework for the allocation debate within the WCPFC. Using an interpretation of the FFA position on allocation, section three sets out the allocation principles used in this chapter and outlines the alternative allocation models. Section four presents the results of these models, while section five discusses issues relating to their interpretation. Section six concludes this chapter.

Basis for Allocation in the WCPFC

What is Allocation?

Allocation is defined here as the process of determining shares, for each resource user, of an explicitly defined level of fishing (eg a total allowable catch (TAC) or total allowable effort (TAE)). This level of fishing, or fishing target, is chosen, in turn, for the purposes of achieving an explicit management goal for the fishery (eg

⁶ FFA, Information Sheet 07/01: Vessel Day Scheme (VDS) Implementation (Parties to the Nauru Agreement), 2007, available at http://www.ffa.int/system/files/VDS+information+Sheet+07_01.pdf; WCPFC, *Conservation And Management Measures for Bigeye And Yellowfin Tuna in the Western And Central Pacific Ocean*, adopted at Second Regular Session, 12 - 16 December 2005, Pohnpei, Federated States of Micronesia, 2005, hereafter WCPFC CMM 2005 -01.

⁷ The exception here is sauries, *WCPFC Convention – Article 3 (3)*.

achieving biological sustainability or achieving maximum economic yield). In essence, allocation is a negotiation about “who” is allowed to catch “what” fish and to “what amount”.

Although a lot of emphasis in policy discussions is placed on the allocation process, determining “who” is allocated “what fish” and “how much”, by itself, will not deliver a sustainable outcome for the WCPFC. Rather, sustainability outcomes (and economic profitability) can only come from setting appropriate global levels of effort or harvest across the fishery and enforcing them appropriately.⁸ Allocation plays the secondary role of translating this global harvest or effort level into a day-to-day management regime for the fishery and, if done well, can do so in a way that promotes fair access to resources and provides significant economic incentives, and resources, for members to comply with the conservation objectives of these targets.⁹ For example, if allocation units are defined as permanent property rights, members who hold a unit of allocation have an interest in ensuring that the fishery is sustainable in the long run so they can continue to enjoy the economic benefits of their rights to fish.

Another relevant issue in the allocation is determining what can be done with an allocated share of TAC or TAE. Choices about how to use an allocated unit is the decision of individual members of the WCPFC, but the means in which some members may exercise this sovereign right may negatively affect the fishing and development opportunities available to other members. Where this occurs, members may consider developing some ‘ground rules’ to minimize these negative effects. Conversely, ground rules about how allocated units can be used can improve the ability of members to fully exploit the opportunities of an allocated unit.¹⁰

⁸ Kompas, T. ‘Fisheries Management - Economic Efficiency and the Concept of ‘Maximum Economic Yield’ in *Australian Commodities*, Vol. 12, No. 1, 2005, pp. 152-160. Grafton, R. Q. ‘Individual Transferable Quotas: Theory and Practice’ in *Reviews in Fish Biology and Fisheries*, Vol. 6, 1996, pp. 5-20. Gordon, H. S. ‘The Economic Theory of a Common-Property Resource: The Fishery’ in *The Journal of Political Economy*, Vol. 62, No. 2, 1954, pp. 124-142. Davis, D. and Gartside, D. F. ‘Challenges for Economic Policy in Sustainable Management of Marine Natural Resources in *Ecological Economics*, Vol. 36, No. 2, 2001, pp. 223-236. Bjørndal, T. and Munro, G. *The Economics of Fisheries Management: A Survey*, Edward Elgar, Cheltenham, 1999.

⁹ See for an over view Grafton, R. Q., Kirkley, J., Kompas, T. and Squires, D. *Economics of Fisheries Management*, Ashgate, 2006; Moloney, D.G. and Pearse, P.H. ‘Quantitative Rights as an Instrument for Regulating Commercial Fisheries’ in *Journal of Fisheries Resources Board*, Canada, Vol. 36, 1979, pp. 859-866; Davis and Gartside, 2001; Grafton, R.Q., Bjørndal, T., Campbell, D., Campbell, H.F., Clark, C.W., Connor, R., Dupont, D., Hannesson, R., Hilborn, R., Kirkley, J., Kompas, T., Lane, D., Munro, G.R., Pascoe, S., Squires, D., Steinshamn, S.I., Turris, B.R. and Weninger, Q. ‘Incentive Based Approaches to Sustainable Fisheries, in *Canadian Journal of Fisheries and Aquatic Sciences*, Vol. 63, No. 3, 2006, pp. 699-710.

¹⁰ For example, rules under the Vessel Day Scheme that allow for the Parties to the Nauru Agreement (PNA) countries to ‘trade’ days can allow individual PNA members to earn revenue from their allocations even if there is no purse seine fishing in their Exclusive Economic Zones (EEZs).

In effect, then, for allocation to improve sustainability outcomes in the WCPFC, members need to consider three interrelated questions:

- how much fish should be harvested or how much fishing effort should be allowed in the fishery? (i.e. what is the target?);
- if the amount of fish harvested or effort allowed in the fishery is limited (due to the target) who should be allowed to fish and how much should each be allowed to harvest? (i.e. what is the allocation process?); and
- once members receive their allocated unit, what other rules may the WCPFC need to implement to allow CCMs to pursue their own tuna development strategies? (i.e. what are the ‘ground rules’?).

Members have a wide range of choices when determining policies for each component of this framework – for example there are a wide range of options regarding the actual allocation process (i.e. “who” gets “how much”) and this will be considered in some detail in section 3. But there are equally a large number of policy choices for determining targets or the ‘ground rules’. For example, should allocations be made on a permanent basis or re-calculated periodically? Should there be a target for biomass as well as for the level of fishing? Should members be permitted to trade their allocated units? A full discussion of these options would extend beyond the scope of this chapter but a range of relevant issues that are worthy of consideration are set out in Table 1.¹¹

¹¹ For a fuller discussion of these issues see Parris (forthcoming) *Governing the Western and Central Pacific Tuna Fisheries in a Complex World*, Chapter Ten in unpublished PhD Thesis, The Crawford School of Economics and Government, The Australian National University, 2009.

Table 1: Policy Options in an Allocation Based Management Framework

POLICY ISSUE TO CONSIDER	POTENTIAL POLICY OPTIONS
Targets <i>What target should be adopted by the WCPFC? What should it look like?</i>	<ul style="list-style-type: none"> • use of a Maximum Sustainable Yield target (focuses on biological sustainability issues only) • use of Maximum Economic Yield target (addresses biological sustainability and economic profitability issues)? • targets to be made for biomass levels? (e.g. B_{msy} or B_{mey}) • targets to be made for harvest/effort levels only? (e.g. $TAC = F_{msy}$ or F_{mey}) • adjust harvest/effort levels to maintain target biomass? (e.g. $TAC = F_{msy}$ or F_{mey} subject to meeting B_{mey})
Nature of allocated unit	<ul style="list-style-type: none"> • permanent share of any future level of fishing/harvest? • allocated units tradeable between parties?
Addressing (biological, economic and political) change in fishery over time	<ul style="list-style-type: none"> • should targets change over time? What time period? • should units be tradeable between gear types? • allowing the use of an allocated unit in any area of the WCPFC-CA? (i.e not just in the EEZ of the coastal state who holds the allocated unit)
Dealing with vessel capacity issues	<ul style="list-style-type: none"> • should WCPFC members be required to pass on (sell or gift) their allocated units to individual vessels? (i.e. in order to avoid establishing an ‘Olympic Fishery’?) • vessels receiving allocation subject to being on WCPFC register and completing all reporting requirements?
“Ground Rules”	<ul style="list-style-type: none"> • Rules to address ecological impacts of fishing? (e.g. restricting access to spawning ground areas?)

Source: Grafton;¹² Kompas;¹³ authors’ own analysis.

WCPFC Powers and Allocation Precedents in Management Measures

Any allocation debate within the WCPFC will not be an ‘open discussion’ between members but will be guided both by the legal framework of the governing WCPF Convention as well as the set of precedents embodied in the current management measures of the WCPFC.

The WCPFC holds specific powers for allocation and these are set out in Article 10 of the WCPF Convention which allow for the establishment of TAC and TAE

¹² Grafton et al, 2006.

¹³ Kompas, T. ‘Fisheries Management - Economic Efficiency and Concept of ‘Maximum Economic Yield’ in *Australian Commodities*, Vol. 12, No. 1, 2005, pp. 152-160.

goals and processes for allocating these fisheries limits between WCPFC members. Unusually for a regional fisheries management organization, the WCPFC Convention significantly acts to guide the scope within which the WCPFC may exercise these powers and these could work potentially in favour of the FFA states. Three Articles are particularly important. The first of these is Article 10 (3) which contains a list of factors that must be 'taken into account' when determining any allocation formula under the WCPFC – many of which reflect the specific interests of FFA members. However; the benefit to the FFA members of Article 10 (3) is unclear because the text is ambiguous and does not provide clear guidance in terms of 'quantifying' shares. For example, it is unclear how to quantify the clause 10 (3) (i) which states "the geographical situation of a small island developing State which is made up of non-contiguous groups of islands having a distinct economic and cultural identity of their own but which are separated by areas of high seas."¹⁴

The second is Article 8, which deals with 'compatibility' issues between the high seas and areas under national jurisdiction and states and requires that conservation measures established within exclusive economic zones (EEZs) and high seas must be compatible, that WCPFC members must cooperate to ensure this occurs but that, in doing so, the WCPFC must 'take into account' any management regimes for the tuna stocks put in place prior to the WCPFC. That is, WCPFC must recognise the prior work of the FFA when determining management measures, including that of allocation.

The third is Article 30 which gives explicit recognition to the special needs of developing state members of the WCPFC. Here, the Convention states that in carrying out its duties, the WCPFC needs "...to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States parties."¹⁵ That is the WCPFC needs to ensure that any allocation regime takes into account the economic circumstance and aspirations of FFA members.

While these three aspects of the WCPFC Convention (Article 10 (3), Article 8 and Article 30) can be used to promote FFA interests, there is a risk associated with them because ensuring that they are used in this way relies on interpretation of the WCPFC Convention. This in turn, depends on ensuring that all non-FFA members of the WCPFC share the same interpretation of the WCPFC Convention. At the time of writing, text interpretation is actively being negotiated between WCPFC

¹⁴ *WCPFC Convention - Article 10 (3)*

¹⁵ *WCPFC Convention - Article 30*

members¹⁶. More specifically, two factors that may ‘dilute’ the benefits of these clauses for the FFA members are:

- Article 10 (3) also includes elements that could be used by distant water fishing nations (DWFN) to support their perspectives on allocation (including, for example ‘past and present fishing patterns’).¹⁷
- Article 30 recognises the special needs of small island developing State members of the WCPFC – but there are many countries beyond the FFA group that could be considered in this way. In particular it is likely that the Philippines and Indonesia – both of who have large domestic fisheries – could also argue for ‘special consideration’ under this clause in any allocation debate.

Implicit Allocation in the WCPFC Conservation and Management Measures

Although explicit allocation has not been pursued in the WCPFC, the implementation of several conservation and management measures (CMMs), focusing primarily on yellowfin, big eye and albacore tuna, and on fleet capacity, carry with them some implicit, and precedent setting, patterns of allocation. These precedents have potentially both positive and negative implications for the FFA States in the allocation debate.

The CMMs are, in the main, structured as imposing limits on fishing effort, capacity or harvest equal to an historical baseline, which is predominately 2004 or 2005 depending on the measure. From an allocation perspective, these CMMs imply that whatever percentage share of effort or harvest that each WCPFC member had operating in the fishery during the base period then that is the share of allocation accruing to that WCPFC member. Table 2 sets out the relevant management measures pertaining to tuna stocks and fishing capacity in active fleets and notes the relative implicit allocation contained in them. One interpretation of these CCMs, that works against the FFA states, is that each of these management measures makes an implicit allocation that tends to favour fleets – predominately the DWFN fishing on the high seas and larger countries with long line fleets – that are already active within the WCPFC Convention Area.¹⁸ This, in turn, potentially undermines the political and economic aspirations of the

¹⁶ Parris, H., Wright, A., Cartwright, I. (2009, forthcoming) *The Challenge of Fisheries Governance post UNFSA: the case of the Western and Central Pacific Fisheries in Grafton, R.Q., Hilborn, R., Squires, D., Williams, M. and Tait, M. (eds) Handbook of Marine Fisheries Conservation and Management* for publication late 2009

¹⁷ E.g. WCPFC Convention, Article 10 (3) (e) the ‘contribution to scientific study’ clauses.

¹⁸ This is particularly the case for long line fleets but less so for purse seine fleets for whom a significant percentage (~50%) of effort is expended in the PNA waters and are therefore covered under the allocation mechanisms of the VDS.

small island developing (SID) States (which includes the FFA group) who may wish to expand their domestic fishing industries.

This interpretation is not shared by the FFA group who have argued consistently that these measures do not limit their fishing related activities to the baseline years but, rather provides them, as a SID member of the WCPFC, with exemptions to expand fishing activity under domestic development strategies in accordance with 'responsible levels of exploitation' (see for example¹⁹, statement of RMI in WCPFC, 2007). For example, with respect to big eye tuna and yellow fin tuna, the WCPFC's management measures state:

Nothing in this decision shall prejudice the legitimate rights and obligations of those small island State members and participating territories in the Convention Area seeking to develop their own domestic fisheries.²⁰

While this position carries legal and political weight, it raises the difficult issue that these exemptions could actually expand current levels of fishing and harvesting and thus critically undermine the sustainability objectives of the CMMs to protect vulnerable stocks. For example analysis of CMM 2008-01 for long line catch of big eye tuna suggests that exemptions given to SIDs members to catch up to 2000 tons of this stock could possibly maintain the level of harvests to ~54% above recommended maximum sustainable yield (MSY) levels.²¹

¹⁹ See for example Statement of the Republic of the Marshall Islands to WCPFC Plenary on issue of Tuvalu in WCPFC, 2006

²⁰ WCPFC CMM 2005 -01, paragraph 6.

²¹ This does not include required reductions in big eye tuna harvests from purse seine fleets – Parris, H. (forthcoming) *Is the Western and Central Pacific Fisheries Commission meeting its conservation and management objectives?* Chapter in PhD Thesis, unpublished manuscript, The Crawford School of Economics and Government, The Australian National University 2009

Table 2: Summary of CMMS Relating to Regulation of Effort and Harvest of Species under Management

Target Stock	Main Features of Measure	Implied Allocation
(Resolution) Reduction of Overcapacity Resolution 2005-02	To reduce capacity of purse seine vessels that entered the fishery between the years 1999-2005	Share of fishing vessels/effort/capacity allocation equal to the share experienced in 1999
Bigeye and yellowfin tuna CMM 2008-01	<p>Total level of fishing effort not increased beyond current (2004) levels:</p> <ul style="list-style-type: none"> • Tropical purse seine vessels to implement measure through the Vessel Day Scheme. • Vessels fishing on the high seas not to exceed 2004 or average of 2001-2004 levels • 30% reduction in bigeye mortality (Applicable 2010-11) • In 2009: as alternative to FAD closures on high seas a 10% reduction in purse seine effort (fishing days). Fishing permitted on ‘free-schools’ • Closure of high seas ‘pockets’ in Western equatorial region to purse seine fishing. • “Other Commercial Fisheries” do not exceed average capacity level for the period 2001-2004 or 2004. • Phased reduction (over 3years) of long line vessels <i>catch</i> of big eye tuna of 30% from average annual catch for the years 2001-04 or 2004 (with ‘floor’ reduction of 2000 tons). 	<p>Share of fishing effort in zones and on high seas for purse seine fleets (and other commercial fisheries) equal to share experienced in 2004 or average of 2001-2004 levels adjusted for reduction historical bigeye catch (purse seine) by 30% and possible reduction of historical fishing activity on high seas by 10%.</p> <p>Reduction in share of effort of high seas purse seine fleets equivalent to that undertaken in the ‘high seas’ pockets in the Western equatorial region (for DWFN fleets only).</p> <p>Reduction in share of bigeye catch by long line of 30% or allocation of 2000 tons (which ever is larger).</p>
southern albacore tuna CMM 2005-02	Limit number of fishing vessels to equal 2005 levels or 2000-2004 levels	Share of long line vessel allocation equal to share experienced in fishery in 2005 or average levels throughout the years 2000-2004
northern albacore tuna CMM 2005-03	Limit fishing effort above equator to ‘current levels’	Share of long line vessel allocation equal to share experienced in fishery in 2005.

Note: ‘Other Commercial Fisheries’ refers to those fisheries such as hand-line, pole and line, purse seine fisheries north of 20oN and south of 20oS, ring-net, troll and unclassified fisheries.

Source: WCPFC Website.²²

Obviously, in the longer run, the continuation of ‘exemptions’ for SIDS members is not viable if the sustainability objectives of the WCPFC are to be met. An alternative interpretation is that these exemptions provide a ‘bargaining chip’ that

²² WCPFC website: *Conservation and Management Measures and Resolutions*, updated on 05/03/2008, cited 30 May 2008. <http://www.wcpfc.int>

can be used by FFA states in future negotiations to leverage more favorable allocations within the context of tighter fishing restrictions.²³

The obvious exception to this implicit allocation approach in the current conservation and management measures is the VDS which has been the most significant measure adopted by the WCPFC.²⁴ The VDS allocation mechanism is unusual in that the organizing principle underlying the formula places sole focus on the issue of *where* the harvest occurs, or *where* in space the distribution of resources are, rather than on *who* is harvesting the fish. In this way it gives practical expression to the principle of coastal State sovereignty and ‘ownership’ of resources, found in Article 61 and 62 of the United Nations Convention on the Law of the Sea (LOSC)²⁵. The WCPFC’s adoption of the VDS as a formal conservation management measure in 2005 was important both in the formal recognition of the importance of the FFA grouping within the WCPFC, and the previous work by the FFA on regional management, as well as explicit recognition of the validity of the ‘coastal State’ principle that underpinned the Scheme’s allocation mechanism.

Allocation Models in the Western and Central Pacific Fisheries Commission

Allocation Principles

Article 10 gives the WCPFC the power to determine criteria for allocation between members and this inevitably will be a political and subjective process. The central question is how to combine the various competing arguments over allocation into a set of allocation principles and subsequently into a set of concrete concepts capable of being quantified in a formula. The critical issue for the FFA states is to determine what principles best represent their interests within this process.

The previous section has highlighted that various factors may be considered relevant in determining allocation principles capable of being quantified. Article 10 (3) of the WCPF Convention provides some guidance to negotiators, but the clauses in this text are difficult to use in deriving an allocation formula primarily because of their ambiguous meaning and the difficulty in quantifying them. As noted above, for Articles 10 (3), 8 and 30 to work in favour of the FFA States, it will require further negotiation with other members. The current set of conservation and management measures do contain potentially negative

²³ This view was expressed privately to the author by various Pacific based commentators during the research conducted for this chapter.

²⁴ See WCPFC CMM 2005-01 paragraph 10 (i).

²⁵ United Nations, ‘United Nations Convention on the Law of the Sea’ (hereafter the LOSC), signed at Montego Bay, Jamaica, on 10 December 1982, in *International Legal Materials*, No. 21, 1982, pp. 1261-1354.

implications for allocation outcomes the FFA States but contain a very big positive in the form of the VDS which sets a clear precedence for ‘coastal State’ sovereign rights within a broader allocation scheme in the WCPFC.

In to this mix, the FFA states have expressed clearly their views on how allocation is to proceed. For example, responding to the Marine Resource Assessment Group (MRAG) paper,²⁶ on behalf of the FFA group, the WCPFC representative from the Federated States of Micronesia noted:

The FFA members see the role of the Commission as being to determine stock-wide total allowable catch or total allowable effort and developing criteria for allocations of the TAC or TAE exactly as provided for in Article 10 of the Convention. We also see the Commission making allocations for the high seas ... we do not see the Commission as having a major role in allocations relating to fishing in waters under national jurisdiction ... [which is] subject under Article 10 to the sovereign right of coastal states ...²⁷

Driven by political imperative to assert their power within the WCPFC, this position by the FFA is understandable. However, set within the context of managing highly migratory shared tuna stocks it is difficult to see how the artificial separation of decision making processes between ‘coastal States’ and ‘high seas’ areas could be achieved in practice in the context of achieving an overall TAC or TAE target for the fishery – at some level both coastal States and States operating on the high seas will need to reach agreement on the level of fishing each member is permitted to have if an over all sustainability objective for the tuna stocks is to be met. This view carries with it the risk that unless coastal States provide reasonable levels of fishing opportunities on the high seas then those that operate in that part of the WCPFC area face strong incentives to undertake illegal fishing – which could have negative consequences for the conservation efforts of FFA States. In evaluating this view it is also worth noting that almost all of the WCPFC members are, in themselves, coastal States (in fact only 5 could be considered purely as DWFNs) and that there are many other ‘developing States’ beyond the FFA group. To talk about allocation solely as the responsibility of ‘coastal’ States means in practice to consider most members of the WCPFC.

In finding a pragmatic way forward, a reasonable interpretation of the FFA position, supported by the text of Article 10 (3), may be that the WCPFC Convention gives coastal State powers (FFA countries as well as others) a priority in determining allocation shares in their favour and, that developing country

²⁶ MRAG, 2006.

²⁷ WCPFC, 2006.

coastal States are particularly generously accounted for in any allocation formula. This does not necessarily mean that SID country members are excluded from the disciplines of catch limits that are put in place for sustainability reasons, but that the allocation regime directly addresses their political and economic aspirations, through generous allocations.

Drawing these various drivers together, the following set of principles were developed to guide the construction of allocation models discussed in the following section:

- allocation shares for coastal States should be based on the amount of harvesting and/or biomass that occurs within its EEZs, regardless of the flag of the vessels carrying out the fishing activity. This is referred to as the “coastal State principle” in the rest of the chapter. This concept essentially reflects the allocation precedence set in WCPFC CMM 2005-01 which endorsed the VDS and extends it to cover all fleets, all species and all countries within the WCPFC;
- allocation on the high seas should preferably be shared equally between all WCPFC members or, if a compromise is needed, in accordance with Article 10 (3) (c) and be based on historical catch of fishing fleets operating based on harvest taken from the high seas only;
- some recognition should be given to precedents set in the current CMMs of the WCPFC; and
- the physical concentration of the tuna resources within the tropical zones of the WCPFC Convention Area, and therefore the concentration around the Pacific Island States, should be recognized and incorporated into the allocation formula.

Thus WCPFC members may derive their allocation share in one of three ways. For coastal States, with no high seas fleet, their allocation is based on the amount of fishing/catch in their zones *as expended by all fleets of all nationalities operating in that zone*, and/or based on the relative size of their EEZs in the Convention Area and/or (possibly) equal shares of any allocation made on the high seas. For coastal States with high seas fleets, their allocation similarly depends on catch/effort in zone, and/or the relative size of their EEZs, and either equal shares high seas allocation or the proportion of effort/catch expended or taken by their flagged vessels on the high seas. For members who are not coastal states, their allocation depends on either receiving equal share on the high seas or the ratio of effort/catch their flagged vessels take on the high seas only.

Allocation Models

Using the allocation principles set out in the section above, the following four allocation models were developed.

Allocation Using Effort Data and Current WCPFC Measures (the “Effort” Model)

This model calculates allocated shares using historical effort data for the principle industrial sized fishing gears: purse seine, frozen long line, fresh long line and pole and line gears. The years 2001–2004 were chosen as the base years for calculation to reflect the base years currently used by the majority of the WCPFC measures. The two key principles are used in this model are the ‘coastal State’ principle and, the compromise principle for the high seas: allocation of a high seas ‘pool of shares’ based on the historical effort of fishing fleets operating in this part of the Convention Area.

To calculate these shares it was necessary to adopt an interpretation of several key issues currently under consideration by the WCPFC. These are as follows:

- it was assumed that the management measures CMM 2008-01²⁸ applied to all major commercial purse seine, long line and pole and line fleets and all areas of the WCPFC Conservation Area, including those flagged to, or based in (ie domestically based) Pacific Island countries;
- Indonesia is yet to ratify the WCPF Convention, and consequently is not eligible for allocated units. Its share of the fishery is calculated and represented separately;²⁹ and
- all references to ‘capacity’, ‘effort’ and ‘vessels’ is interpreted as meaning ‘fishing days’ for the purse seine and pole and line fleets and ‘number of hooks’ for the long line fleet.

Principle data sets used in this analysis, can be found in Reid (2007), Hampton et al (2006a), Hampton et al (2006b), Langley et al (2005a), Langley et al (2005b), WCPFC (2008) and supplementary national reports submitted by members to the WCPFC Scientific Committee.³⁰

²⁸ WCPFC, Conservation and Management for bigeye and yellowfin in the Western and Central Pacific Ocean, CMM 2008-01, adopted at the Fifth Regular Session, Busan, Korea, 2008.

²⁹ Ideally, effort related to Indonesian fishing fleets would be explicitly incorporated into the allocation model either through Indonesia joining the WCPFC or by ‘holding in trust’ and therefore explicitly accounting for its effects on the fishery.

³⁰ Reid, C. *Value of WCPO Tuna Fisheries*, 2007, database available at www.ffa.int; Hampton, J., Langley, A., Kleiber, P. *Stock Assessment of Yellowfin Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*, Scientific Committee Second Regular Session, 7-18 August 2006, Manila, Philippines, WCPFC-SC2-2006/SA WP-1, 2006a; Hampton, J., Langley, A., Kleiber, P. *Stock Assessment of Bigeye Tuna In The Western And Central Pacific Ocean, Including An Analysis Of Management Options*, Scientific Committee Second Regular Session, 7-18 August 2006, Manila, Philippines, WCPFC-SC2-2006/SA WP-2, 2006b; Langley, A. and Hampton, J. *Stock Assessment of Albacore Tuna in the South Pacific Ocean*, 1st Meeting of the Scientific Committee of the Western and Central Pacific Fisheries Commission, Noumea, New Caledonia, 2005; Langley, A., Hampton, J. and Ogura, M. *Stock Assessment of Skipjack Tuna in the Western and Central Pacific Ocean*, 1st Meeting of the Scientific Committee of the Western and Central Pacific Fisheries Commission, 8–19 August 2005, Noumea, New Caledonia, WCPFC–SC1, 2005; WCPFC, *Conservation and Management for Bigeye and*

As this model reflects the current set of WCPFC management measures, an additional form of allocation to cover bigeye tuna harvest is also incorporated into this model. CMM 2008-01 provides an implicit *harvest based* allocation for long line fleets catching bigeye tuna to an amount equal to 70% of the average catch taken in the years 2001-2004 or 2004 from 2011 (for China and US only) or 2000 tonnes, whichever is larger.³¹ This was converted into shares of bigeye tuna catch based on the proportion of catch taken by each party, as allowed for in CMM 2008-01, on the assumption that the total amount of allowable bigeye tuna was harvested.³²

Allocation Using Harvest Data and Variable Based (the “Harvest” Model)

This allocation model uses historical harvest data to calculate relative allocations using the ‘coastal State’ principle and high seas historical “flag” catch record as in the ‘Effort model’. Two base years were chosen for the analysis. First, the years 1997-2005 were used for determining the relative shares of allocation as this reflected both a period of several *El Nino-Southern Oscillation* (ENSO) cycles in the Pacific, which alter the geographical spread of skipjack tuna harvests,³³ and

Yellowfin in the Western and Central Pacific Ocean CMM 2008-01, Agreed at the Fifth Regular Session, Busan, Korea, 2008; PNA States: *FFA Vessel Day Scheme (VDS) Implementation* Information Sheet 07/01, 2007, available www.ffa.int accessed 1 September, 2007; WCPFC, *Purse Seine Effort In The Zones Of Non-PNA CCMs And On The High Seas WCPFC-TCC4-2008/13*, Date: 29 August 2008, Paper presented at the Technical and Compliance Committee Fourth Regular Session, 2-7 October 2008, Pohnpei, Federated States of Micronesia, 2008; WCPFC, *Purse Seine Effort in the Zones of Non-PNA CCMs and on the high seas WCPFC-TCC4-2008/13 Supplementary*, dated 24 September 2008, Technical and Compliance Committee Fourth Regular Session, 2-7 October 2008, Pohnpei, Federated States of Micronesia, 2008; New Zealand Data: pers. com. Matthew Hooper, 4 February 2008; Japan Data: Matsunaga, H., O. H., Uosaki, K., Sato, K., Semba Y. and Miyabe, N. *National Tuna Fishery Report: Japan WCPFC-SC2-2006*. Paper presented at the Scientific Committee Second Regular Session, 7-18 August 2006, Manila, Philippines, 2006; Fisheries Agency of Japan. *Annual Report - Part 1, Information on Fisheries, Research and Statistics WCPFC-SC3-AR Part1/WP-13*. Paper presented at the Scientific Committee Third Regular Session, 13-24 August 2007, Honolulu, USA, 2007. During the analysis it was not possible to obtain spatially disaggregated data for effort levels for all fleets and all gear types – such data was only available for the purse seine fleet. Instead the analysis uses spatially disaggregated catch data from Reid, 2007, *above*, as a proxy for effort data for the frozen and fresh long line fleets and the pole and line fleets.

³¹ CMM 2008-01 states: “paragraph 31. The total catch of bigeye tuna by longline fishing gear will be subject to a phased reduction such that by 1 January 2012 the longline catch of bigeye tuna is 70% of the average annual catch in 2001-2004 or 2004. The catch of yellowfin tuna is not to be increased in the longline fishery from the 2001-2004 levels. And Paragraph 32 Paragraph 31 does not apply to members and participating territories that caught less than 2,000 tonnes in 2004. Each member that caught less than 2,000 tonnes of bigeye in 2004 shall ensure that their catch does not exceed 2,000 tonnes in each of the next 3 years (2009, 2010 and 2011). Consistent with paragraph 3 opportunities for non members will be decided by the Commission on a case by case basis.”

³² That is, assuming that all parties caught, in the future, the equivalent of their average 2001-2004 catch or 2000 tonnes. Since not all parties actually catch this amount, this allocation mechanism is essentially allowing for an expansion in the bigeye tuna harvests.

³³ Lehodey, P. ‘The Pelagic Ecosystem of the Tropical Pacific Ocean: Dynamic Spatial Modelling and Biological Consequences of ENSO’ in *Progress In Oceanography*, Vol. 49, No. 1-4, 2001, pp. 439-468.

the scope of the time series used in the analysis. A shorter based period of 2000-2005 was also calculated to explore the effects of using different baselines in calculations of allocation and to reflect an historical period whereby FFA domestic fleets were growing in relative size in the fishery. This model was calculated using the same basic procedures of the 'Effort model' with the principle data sources being derived from Reid.³⁴

In addition to allocations made to individual parties of the WCPFC, this model explicitly incorporates an allocation to two global 'pools' of harvest rights that are held by the WCPFC as a whole. The first allocation 'pool' is made to cover harvests taken by fishers (such as subsistence fishers) whose target stocks are biologically part of the Western and Central Pacific Ocean (WCPO) tuna stocks but for some reason are not institutionally incorporated within the WCPFC allocation based management regime (for example, artisanal catches or catches taken in Indonesian waters). This ensures that catches taken from non-covered sources do not become a source of 'leakage' for the system, and thus undermine broader efforts to achieve stock sustainability. This allocation also directly addresses the criteria in Article 10 (3) (d) and (g) which requires the needs of coastal communities, and their reliance on fishing activities, be incorporated into the allocation regime.

Following on Chand³⁵, the second pool is to allocate directly to the WCPFC Secretariat, who can then auction the TAC for fund raising to finance its own activities and/or to finance a 'development/capacity fund' for developing country members of the WCPFC. If necessary, a portion of the funds raised through the open action could be used to fund a 'buy back' scheme to enable vessels to leave the fishery, and reduce capacity down to more appropriate levels.

Allocation Using Estimated Biomass Shares in EEZs (the "Biomass" Model)

The allocation pattern in this model follows the basic pattern of coastal state/high seas allocation as discussed above but, in contrast to the previous two models, the baseline data uses patterns of estimated biomass distribution throughout the WCPF Convention Area to determine relative shares for each member. Thus, the expected share of biomass to be found in the EEZs of coastal State members and shares of high seas biomass allocated on a flag State basis, forms the basis of calculating shares. This method extends the biomass component of the allocation mechanism used in the VDS to cover all coastal States and all tuna species harvested in the

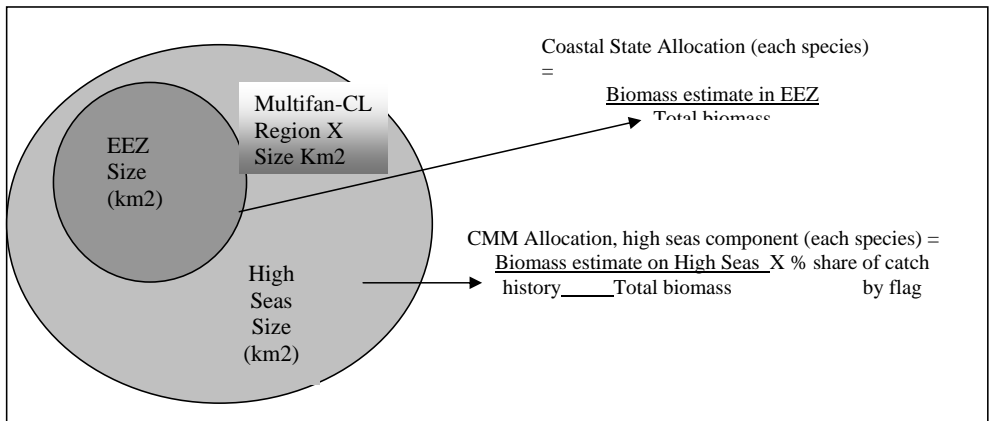
³⁴ Reid, 2007

³⁵ Chand, S., Grafton., R.Q. and Petersen, E. 'Multilateral Governance of Fisheries: Management and Cooperation in the Western and Central Pacific Tuna Fisheries' in *Marine Resource Economics*, Vol. 18, 2003, pp. 329-344.

WCPF Convention Area.³⁶ The years 1995-2005 were chosen as the base years for determining relative shares as this reflects the impacts of several ENSO cycles in the Pacific, as well as recent levels of biomass available in the fishery.

Following the precedent of the VDS allocation mechanism, this model is calculated using the relative size of EEZs of each coastal state within the WCPFC and the estimated relative ‘biomass’ density of each coastal State area, a summary of which is set out in Diagram 1. Basic data is drawn from tuna stock assessment reports of Secretariat of the Pacific Community (SPC) and from a Graphic Information System (GIS) spatial model of the WCPF Convention Area constructed for the purposes of this analysis. Further details of methods used in this model are set out in Parris.³⁷

Diagram 1: Key Principles in Biomass and ‘Spatial’ Based Allocation Model



³⁶ As discussed above, the northern albacore tuna stocks are excluded from this analysis.

³⁷ Parris H (2009, forthcoming) *Allocation Based Governance in the Western and Central Pacific Fisheries Commission: who gets what, where and why?* Chapter in unpublished PhD thesis, Crawford School of Economics and Government, The Australian National University. For the calculations of biomass estimates, the GIS model required the use of defined boundaries of both the EEZs of coastal states and the WCPF Convention Area itself. The later was problematic due to the lack of a formal western boundary of the Convention Area. This was resolved by adopting the spatial boundaries used by MFCL model when conducting stock assessments for the WCPFC – although it is recognised that there may be some under-representation of the actual distribution of biomass as a result. For example, it is likely that skipjack tuna biomass may be found in the Australian and New Zealand EEZs but estimates pertaining to these areas are not incorporated into the skipjack tuna biomass model because the MFCL model for skipjack tuna does not incorporate the EEZs of these two countries. In addition, it is recognised that some minor portions of the WCPFC-CA are subject to joint maritime claims or joint management regimes. These areas are grouped together in the results to highlight the uncertainty surrounding these areas and to avoid making pre-emptive decisions regarding maritime or other international boundaries.

Allocation Using Relative Size of EEZs (the “Spatial” Model)

This model is a simplified version of the Biomass model and uses spatial parameters only to determine relative shares between coastal States and high seas areas. Preliminary calculations of this model produced results for the FFA countries that were less than the shares calculated in the Harvest model, because the relative size of coastal State EEZs was diluted by the broad expanse of high seas areas in the northern and southern regions of the WCPF Convention Area. Although the high seas areas are legitimately a part of the WCPF Convention Area, it is recognized that the majority of the tuna biomass spend the majority of their lives in and around the tropical and sub-tropical zones (see stock assessment reports prepared by SPC, listed in footnote 28) where most coastal States’ EEZs are found. To incorporate this into the analysis, estimates of EEZ biomass was weighted against the SPC biomass estimates in each sub-region of the SPC stock assessment model (i.e. the Multifan-CL or MFCL Model) to provide an overall estimate of the size of the EEZ and its relative ‘importance’ in terms of tuna resources. In order to test the influence of the ‘equal high seas shares’ approach, this model allocates shares associated with high seas spatial areas equally between all WCPFC members, of which there are currently 33.³⁸

Although much focus is placed on the ‘tropical’ part of the WCPF Convention Area, the EEZs of other coastal States – such as Japan, New Zealand or the US – are also fished and also legitimate parts of the fishing grounds and are included in SPC stock assessments. Where the appropriate data was available, these areas were therefore included in the allocation calculations.

Allocation Shares: Results and Comparison to Current Fishing Activities

Results

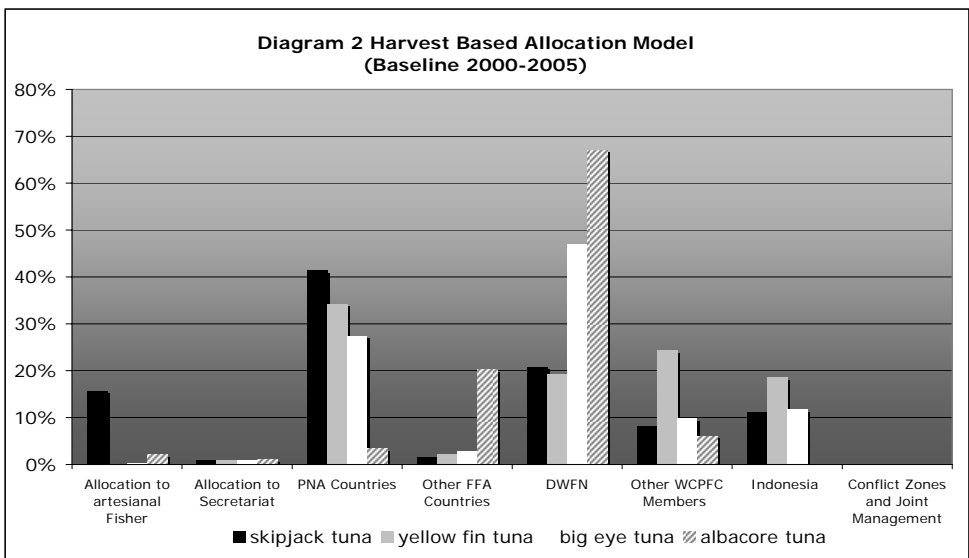
The results for the four basic allocation models are set out in diagrams 2, 3, 4, 5 and 6. For conciseness, the results for individual countries are grouped together with other WCPFC parties of similar interests although it is acknowledged that this does mask some differences within groups as actual shares for individual countries may differ significantly from what is suggested by group totals. These groups are:

- PNA countries: Papua New Guinea, Solomon Islands, Tuvalu, Kiribati, Marshall Islands, Federated States of Micronesia, Palau, Nauru;
- Other FFA countries: Vanuatu, Fiji, Cook Islands, Samoa, Tonga, Nuie, Australia, New Zealand, Tokelau;
- distant water fishing nations (DWFN): USA, Japan, Korea, Taiwan, China, European Union;

³⁸ WCPFC, Western and Central Pacific Fisheries Commission website homepage, cited December 2007, <http://www.wcpfc.int> and were correct at the time of calculations.

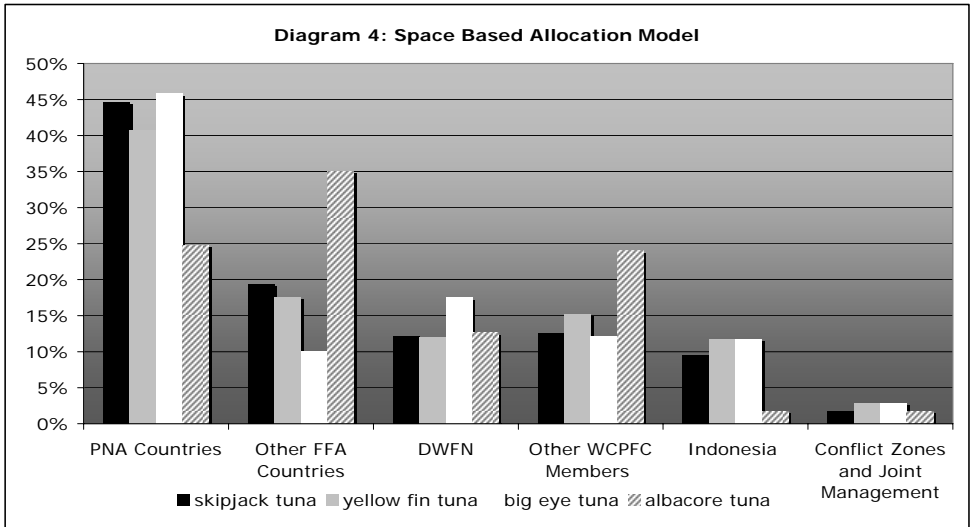
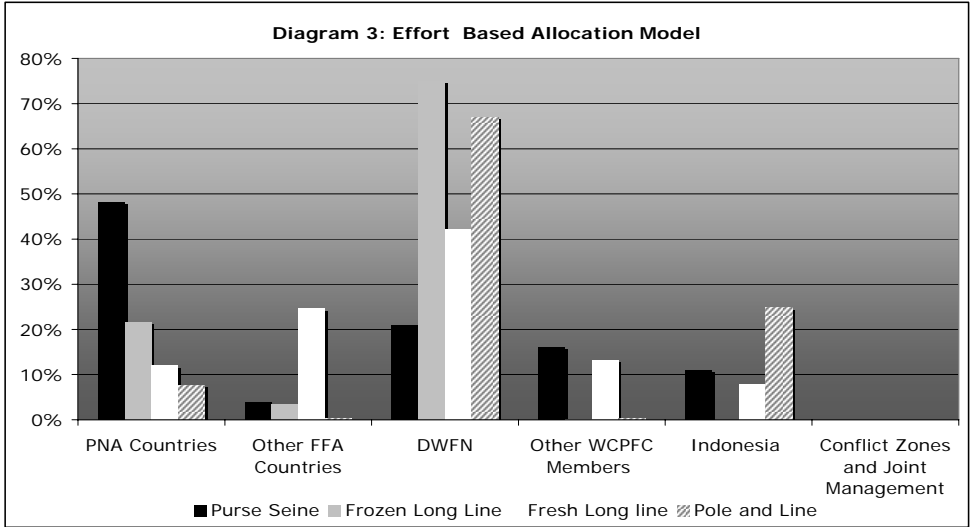
- other WCPFC members: Philippines, French Polynesia, American Samoa, New Caledonia, Guam and CNMI, Wallis and Futuna and Canada; and
- Indonesia.

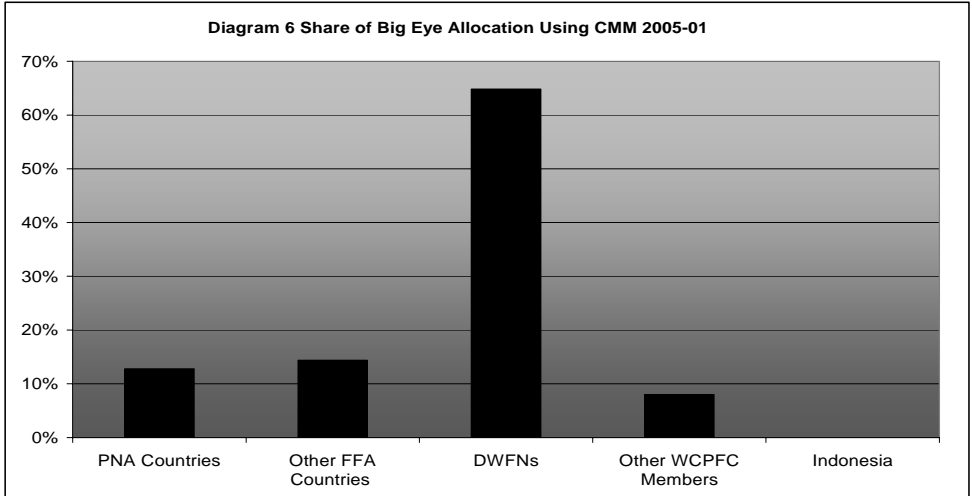
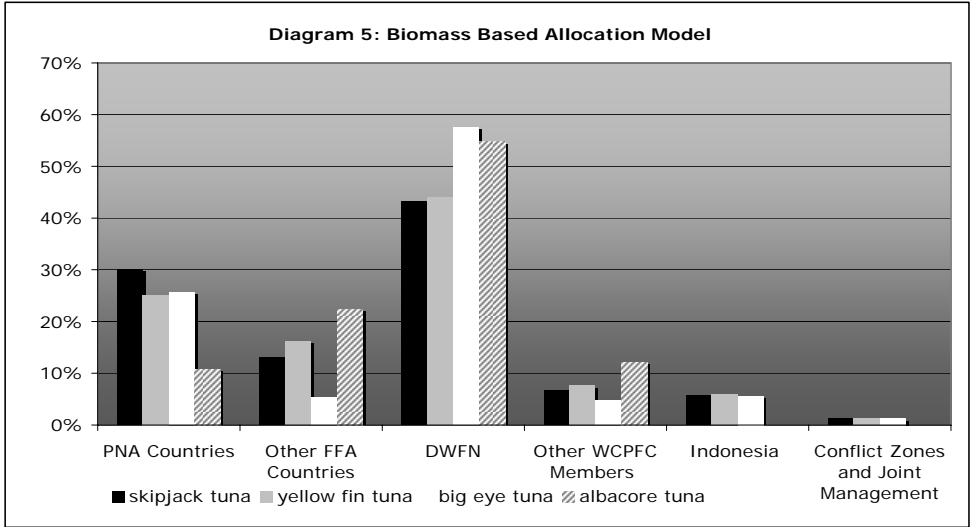
Clearly, each model results in different outcomes for FFA countries and evaluation of whether this is a ‘good’ or a ‘poor’ outcome depends on individual countries actual and relative allocations and on the current and aspirational resource industry development plans for each country.³⁹ Here, discussions are limited to comments on the relative proportions allocated towards a particular group – with high proportions of allocated units being considered more favorable, although it is noted that this does not necessarily translate into relative shares of any wealth associated with the tuna resources.⁴⁰



³⁹ For a discussion of these in the context of the WCPFC management measures see Gillett, R. *A Study of Tuna Industry Development Aspirations of FFA Member Countries*, A report prepared for the Forum Fisheries Agency, Honiara, Solomon Islands, 2008.

⁴⁰ This is because the ability for a country to generate income from its shares may be disproportionately more valuable and the percentage share of its physical allocation. This issue is considered in more depth in the discussion section.





Comparing across models for the PNA countries, the Effort model for the purse seine and frozen long line fleets provides the best relative share of the fishery, although this model performs relatively poorly for this group for shares of fresh long line and pole and line gears⁴¹. The relatively good results of the frozen long line, rather than the fresh long line, are driven primarily by Kiribati's significant share of frozen long line activity (by DWFNs) in its EEZ. This is potentially good news for the PNA countries because, in using their negotiation position of 'coastal State allocation' it could provide good outcomes for the primary gear of interest for the PNA States (ie the purse seine fleets) while providing some scope for the PNA countries to provide for some domestic long line fleet development.

The Space model provides the second best option for the PNA, in terms of accessing relative shares of skipjack tuna, yellowfin tuna and bigeye tuna, albacore tuna and actually provides shares for each species in excess of the gear shares set out in the Effort model. However, the Effort model was considered a more favourable outcome for the PNA because it provided a stronger share in purse seine gears (assumed to be the highest priority) and was considered an 'easier' form of allocation to implement because it is based on the existing approach under the VDS. Somewhat surprisingly, the Biomass Based Allocation model provides the least favorable overall outcome for the PNA countries. Although these countries have the highest level of biomass in their EEZ for skipjack tuna, yellowfin tuna and big eye tuna – and thus are allocated accordingly – this relative advantage (particularly compared to the DWFN) is more than offset by the allocation shares derived from biomass found in the high seas – the majority of which is allocated to the DWFNs on the basis of their dominant historical catch in this area.

The results for the "Other FFA group" are significantly different from the "PNA countries" group both in terms of having an absolutely smaller allocation in all models, with the exception of albacore tuna in some models, and the pattern of favourable allocations being, in general, different from the PNA. For this group, the Space Based model provides the possibility for these countries to obtain the largest share in the fishery in terms of species – although estimated fresh long line shares in the Effort model or the albacore shares in the Biomass or Harvest model may also provide a reasonably acceptable share. It is likely that, for many countries in the "Other FFA group", the relatively good results from the Spatial model come from the equal sharing of allocations on the high seas, and on the weighting procedure adopted – rather than the actual relative size shares of the EEZ of this group.

⁴¹ For the Harvest model, the difference between using the 1997-2005 baseline versus the 2000-2005 baseline were considered and shown to provide some positive benefits for PNA States for skipjack tuna stocks but only marginal benefits being accrued to other FFA States and for other species.

The underlying coastal State/high seas allocation principle in each of these models assumes that this approach will produce an outcome that directs the largest share of tuna resources towards the FFA States, with the PNA States being particularly advantaged. These results are, therefore, somewhat surprising in the sizeable allocations that each scenario provide to both the DWFNs, to other WCPFC countries and to Indonesia, in some cases on more favorable terms than the FFA countries. The results for the Biomass model are particularly challenging because they indicate that the use of the physical characteristics of the fishery, an idea that has broad support throughout the FFA, may not necessarily work in the FFA's favour if it is extended across the WCPF Convention Area.⁴²

One explanation for observed allocation patterns in the Harvest and Effort Based models arises from the choice of using recent historical catch and effort data as the basis for allocation. As this data reflects actual recent activity, then the allocation patterns using the data will also mirror this history – it is therefore unsurprising that the DWFN, and the Philippines, which dominate recent fishery activity, are also dominant in the allocation formula. More generally, however, three factors contribute to the observed allocation patterns:

- Japan, Taiwan, the US are coastal States as well as being DWFNs – they therefore receive allocations from both the EEZ pool and the high seas pool;
- Indonesia and the Philippines are significant coastal States; and
- Japan and Taiwan, and to some extent Korea, dominate high seas catches and effort for most gear types and for albacore tuna.

The final effect may be somewhat ameliorated if the use of the principle of 'equal share' of high seas is adopted – and the results in the spatial model indicate the potential benefits this approach. An alternative way of addressing the dominance of the DWFN on the high seas may be achieved if the results incorporated the into the high seas quota, the fishing history taken by vessels fishing under their own (DWFN) flag, but are operated as part of a chartering arrangement with a FFA State. Counting fishing activity of this type towards the allocation of a chartering State is a position adopted by the FFA States as part of its draft Charter Arrangement Scheme developed for, but never adopted by, the WCPFC.⁴³ FFA States argue, in turn, that this position is supported by the text of the Conservation

⁴² Care needs to be taken when interpreting these results because some of the technical assumptions used in this analysis skews the results in favour of the high seas. The primary problem with the biomass calculations is the assumption that the high seas part of the Convention Area is as 'biologically' dense as the EEZ areas – something unlikely to actually be the case, although it was used in order to simplify the calculations. The effect is to over state the level of biomass found in the high seas and therefore inflate the allocation accruing to the (DWFNs) fleets that operate there.

⁴³ FFA, *Draft WCPFC Conservation and Management Measure to Establish a WCPFC Vessel Chartering Scheme* WCPFC3-2006-DP06 Rev. 1, submitted to the WCPFC Third Regular Session, 11-15 December 2006, Apia, Samoa.

and Management Measure 2005-01 of the WCPFC, which relates to the conservation and management of big eye tuna and yellowfin tuna. This text states:

For the purposes of these measures, vessels operated under charter, lease or other similar mechanisms by developing islands States and participating territories, as an integral part of their domestic fleet, shall be considered to be vessels of the host island state or territory⁴⁴.

For the FFA interpretation of this clause to have substantial impact on allocation to the FFA countries (PNA and “Other FFA”) then it must be read by the WCPFC membership as a whole as applying beyond monitoring, compliance and surveillance to incorporate allocation and to allocation of all species (rather than just big eye tuna and yellowfin tuna which is the subject of this measure). At this point in time, it is unclear whether this interpretation will be adopted by the WCPFC but, if so, this could alter the balance of tuna in the FFA’s favour with particular benefits accruing in the albacore tuna allocation as the majority of this species is taken on the high seas.

Finally, the Effort model (based on the current management measures of the WCPFC) also includes a *harvest* component for big eye tuna based on the allocation implied by CCM 2005-01. The results set out in diagram 8 clearly show a dominance in allocation of this species to DWFN, primarily driven by the dominance of DWFN long line fleets targeting this species on the high seas – although, as noted above, this could potentially be offset through an FFA charter arrangement. The pattern of allocation in this measure for big eye tuna draws attention to one of the potential risks to the FFA of using the current CMMs as the basis for an allocation negotiation strategy. While the use of a TAE can benefit the PNA countries, extension of a TAE and TAC for big-eye could mean that some other FFA states miss out on receiving an allocation that could accommodate their aspirations for future development.

Combinations of Models

As part of the negotiating process, it is possible that some combination of allocation approaches may be used – and indeed the experience of the VDS negotiations highlights this as a real possibility. Numerous combinations are possible, and ultimately depend on what is negotiated between parties. To explore some possibilities, this chapter examines four combinations:

- combination 1: 33.3% equal sharing of the ‘spatial’, ‘biomass’ and ‘effort’ models;
- combination 2: 50% equal sharing of the ‘effort’ and ‘biomass’ models (as an attempt to replicate the VDS);

⁴⁴ WCPFC CMM 2005 -01.

- combination 3: 60% share of ‘spatial’ model and 40% ‘effort’ model; or
- combination 4: 25% equal sharing of all four models.

Summary results are set out in Diagrams 7, 8, 9 and 10. Combination 1 was chosen to incorporate the results of the two best options for the FFA States (the spatial and effort models) with the best option for the DWFN countries (the biomass model) – as may be necessary in a negotiated outcome. Combination two was chosen to reflect the allocation mechanism used in the VDS. Combination 3 was chosen to reflect a combination of the two best models for the FFA and combination 4 reflects the effects of all four models.

A key disadvantage of using the ‘single’ models discussed above is that the model that best suits the PNA States is not the one that best suits the “Other FFA group” – and the choice of one over the other will involve a significant trade off for one of those groups. This effect is muted with the use of the ‘combined models’, where both FFA groups experience the best outcomes in a ‘combined approach’ (unsurprisingly) in combination three – which uses the two best individual models for both groups (space and effort), with some additional emphasis placed a key resource (space has 60% weighting) that is available to all FFA members. This suggests that an allocation approach does exist which promotes the interests of all FFA States, relative to other WCPFC members.

However, combining the models in this way does require a tradeoff in shares compared to the situation if individual “Effort” or “Spatial” models were used and it is not apparently clear that using this approach of combining models is in the absolute advantage of either group. For example, while Combination 3 model (space and effort) is the best blend of the individual models, it may be better for the PNA or the Other FFA group to adopt their ‘second best’ option, in the base case models, rather than used a combination of approaches. That is:

- for the PNA group, the effort model (its best result) provides a 47.91% share of the purse seine gear, while the second best option (space model) provides a 44.67% share of the skipjack tuna species. In contrast, combination three provides a 43.41% share of skipjack tuna allocation;
- for the Other FFA group, the space model (its best result) gives them a 35.06% share of albacore tuna allocation while the effort model (its second best option) gives this group a 24.63% share of the fresh long line gear allocation. Combination 3, in contrast, provides this group with a 25.03% share of the albacore tuna allocation.

Although comparisons between TAC (species shares) and TAE (gear shares) based allocation regimes is difficult, these results suggest that there is no one clear best option for developing a unified FFA allocation position and some compromise between the different FFA interests will be required. However,

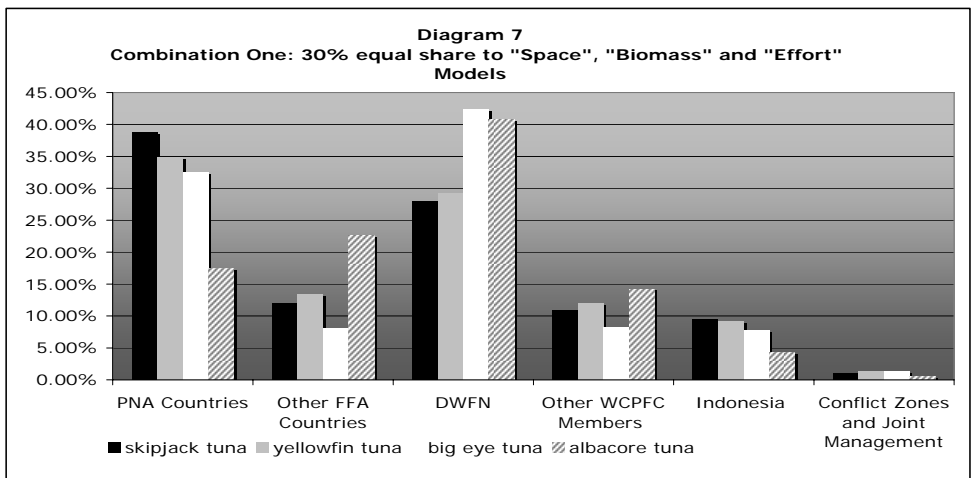
evaluation between these options will also need to take into account factors such as the relative difficulty in implementing and enforcing a TAE versus a TAC based allocation and the relative merits of each approach in achieving target fishing mortality or biomass levels. While an effort based approach may be easier to implement, a species based approach, if implemented well, will provide a more reliable tool for achieving overall sustainability outcomes.

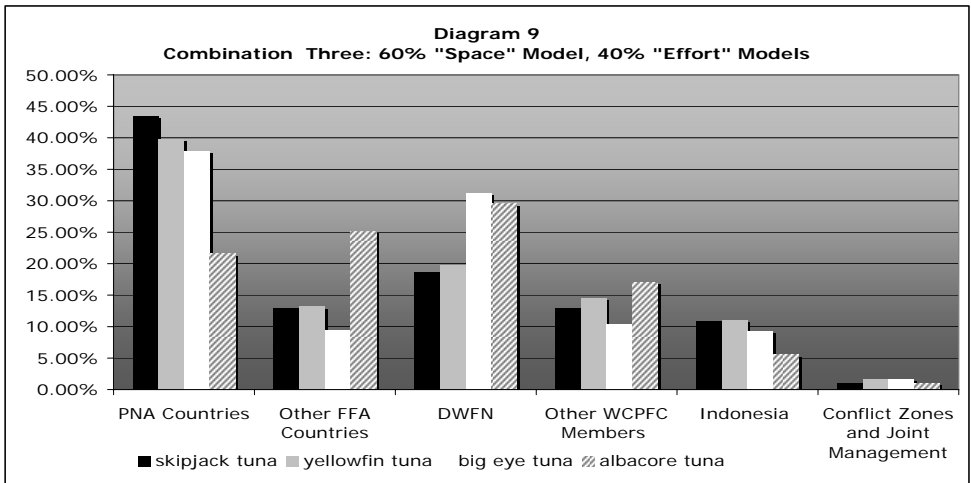
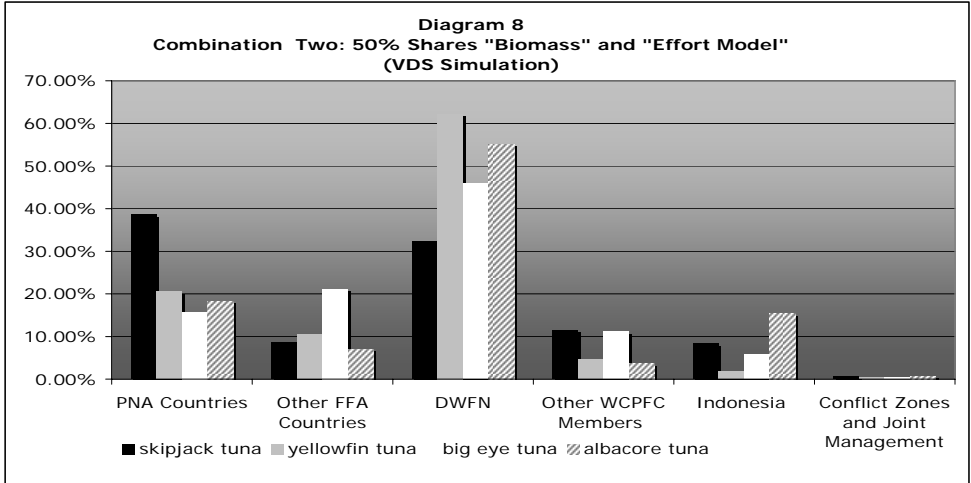
Comparisons to 2005

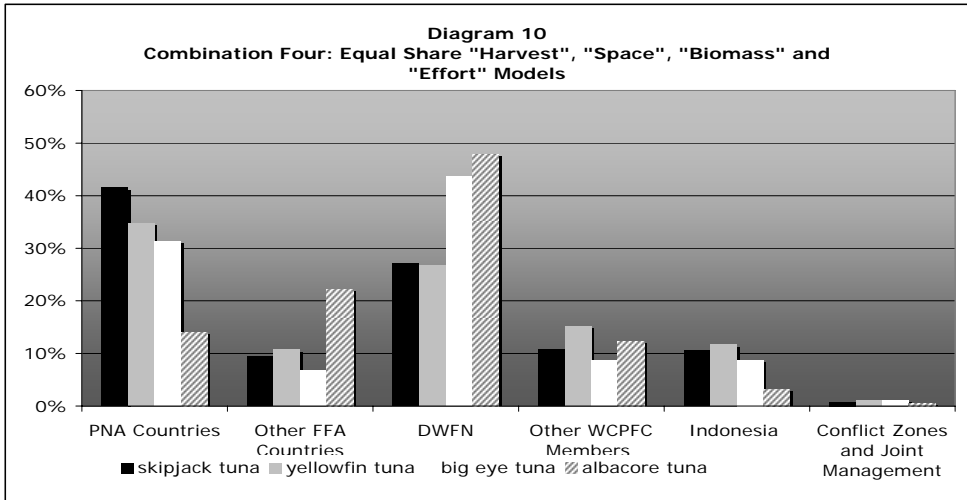
In considering issues regarding allocation, debate often centers around the relative performance of the new management regime compared to the existing situation. To this end, the following comparisons were made:

- Biomass, Spatial and Harvest Based models compared to proportional share of harvest in 2005 harvests – allocated to each country using same allocation rules used in the allocation models discussed above; and
- Effort based models, compared to the level of effort in the purse seine fleet in the fishery in 2005.

For skipjack tuna and yellowfin tuna, the Space Based model produces the allocation outcome that is most similar to the distribution of skipjack tuna patterns experience in 2005 by the PNA group (although it is a reduction). By contrast, the Biomass Based model represents a substantial shift away from 2005 patterns – with the significant reallocation away from PNA countries towards the other groups. For the Other FFA group, the Harvest model represents a slight decrease (skipjack tuna) or increase (yellowfin tuna) compared to 2005, while the remaining models represent significant increases in catch shares.







For big eye tuna (incorporating the TAC component of the Effort model) the Harvest Based model represents a slight increase for the PNA Group, while the Biomass Based model and the Effort Based model represents a moderate and significant decrease respectively. The Space model and the Combined model 3 represent substantial increases for the PNA. For the “Other FFA countries” all models represent a slight to significant increase in harvest shares compared to 2005. These models represent a shift away from the PNA countries, “other WCPFC countries” and “Indonesia” towards the DWFNs.

For albacore tuna none of the models produce an allocation pattern that is close to the harvest share experienced in 2005. For all FFA countries, the Harvest model represents a decrease compared to the 2005 fishery, while all other models provide an increase in harvest shares compared to 2005 with the Space Based model providing the largest increase.

For purse seine effort, comparisons with 2005 levels of effort suggest that the Effort model represents a decrease in shares accruing to the PNA - with a shift towards the DWFN group and other WCPFC country group (mainly the Philippines) - and a slight increase to the Other FFA group.

Discussion

Is an Allocation Regime Worthwhile for the FFA States?

The models discussed above provide an analysis of a limited number of alternative allocation scenarios that could be considered in the context of the WCPFC. A key question is whether these models are consistent with Article 10 (3) of the WCPF

Convention. This is a difficult question to answer because the language used in Article 10 (3) is ambiguous and depends on developing a consistent interpretation agreed to by all WCPFC members. A preliminary analysis of whether these models meet the range of issues that ‘need to be taken into account’ is set out in Table 2 and suggests that it may be consistent, but it depends on the interpretation of the WCPFC Convention.

While each model attempts to draw upon the FFA approach to allocation it is acknowledged that many other alternatives are also possible – including a purely negotiated allocation formula without reference to harvest, effort or biomass data. However, if the FFA countries wish to use a data driven formula as the basis for an allocation debate, the results in this chapter raise some challenging issues including:

- general application of the allocation principles often promoted by the FFA States will not result in an unambiguously positive outcome. Furthermore, there is no one single allocation regime that will provide the ‘largest share’ of the fishery to all FFA States. In particular, emulating the VDS allocation formula across the entire WCPFC may not work in the favour of the broader FFA membership;
- the coastal State principle legitimately allocates a substantial portion of shares to non-FFA coastal States – predominately Japan, Indonesia, Philippines;
- use of Harvest or Effort based models rewards those countries that have actively encouraged an expansion in the fishing effort; and
- although the Effort model represents a potentially good outcome for the PNA states – and, as it draws upon the VDS, and therefore may be the easiest to implement – it does represent a decrease in purse seine shares from 2005. WCPFC data currently indicates that purse seine effort in PNA waters has increased since 2005 – which suggests that the use of the Effort model may require an even further the reduction from ‘status quo’ as set out in this analysis.

It is recognised, however, that there will remain a strong political driver to find a unified negotiating position amongst the FFA group in order to push forward an allocation debate that does not undermine the potential benefits of the approach or undermine the gains already made by FFA states. In finding a path forward, it may be observed that different models produce different kinds of outcomes for individual species or gears and that there are significant variations in interests in the fishery amongst FFA members. A potential option to accommodate these different interests may be to explore the implications of using different allocation formulas for each species or gears. For example, using the Spatial model for allocation of albacore tuna stocks, the Effort model for the skipjack tuna stocks and a combination of both for allocating the big eye tuna and yellowfin tuna stocks.

In weighing up the potential costs or benefits of an allocation approach several other factors should be considered. First it is important to remember that the shares calculated in this chapter represent physical shares in the fishery and do not

necessarily represent the share in the *value* of the fishery – which may be quite different. It is likely that the economic value of a share of an allocated unit of ‘TAC’ or ‘TAE’ in the WCPFC will be calculated differently from the current way of determining access fees in a bilateral access arrangement. This is because a unit of allocated ‘TAC/TAE’ represents a different, and possibly more secure, form of access to the fishery and, the greater the security, the more likely vessels are to offer higher payments for it. This benefit is more likely to occur if the ‘ground rules’ used by the WCPFC mean that allocations are made as permanent rights (increase in security) and that those rights are able to be exercised anywhere within the WCPFC Convention Area (increases the area in which these rights are exercised).

A second, the benefit of an allocation approach is that it does provide some allocation to the non-PNA members of the FFA group – and therefore allows them to generate an income stream (by selling the allocation) somewhat equivalent to the access fees enjoyed by the PNA States. Under the current situation, the “other FFA” group does not receive any DWFN access fee revenue beyond the US Multilateral Treaty (USMLT) and faces the possible risk under the WCPFC CMMs of having limited access to the fishery should CCMs be enforced on SIDS.

Implications for the FFA Treaties

For the PNA countries and for the FFA more broadly, an important consideration is the impact of allocation based management models on the current purse seine treaties: the VDS, the Federated States of Micronesia Arrangement and the US Multilateral Treaty.⁴⁵ The potential benefits to the purse seine treaties lie predominately in the choices that the WCPFC make regarding the nature of the allocated unit – ie issues relating to targets and sustainability, property rights and the way in which these rights are exercised throughout the region (see table 1). These allocation based management regimes have the capacity to strengthen the FFA Purse Seine Treaties through the provision of more secure access to resources through the provision of in-perpetuity TAC or TAE, and by placing fisheries management goals on a sustainable basis by selecting a TAC that achieves a sustainable harvest over time. To achieve these benefits, however, the allocation results here suggest that PNA States may have to accept a slightly lower share of the allocation pool than the share of total fishing activity they experienced in 2005 for skipjack tuna and yellowfin tuna.

The overall impact of this trade-off on the FFA Treaties from these models depends on the particular model selected and the PNA’s own response to allocation based

⁴⁵ The full names of these Treaties are: Treaty on Fisheries between the Governments of Certain Pacific Island States and the Government of the United States of America which entered into force in 1987 and Federated States of Micronesia Arrangement for Regional Fisheries Access which entered into force in 1995.

management under the WCPFC. A number of different scenario's are possible, with three such outcomes being:

- under an Effort Based allocation regime: continue as is under the current framework – albeit with different amounts of purse seine days available for distribution to DWFN, US vessels and domestic vessels under the Federated States of Micronesia Arrangement (FSMA);
- under a Harvest or Biomass based regime: implement a dual licensing system where by PNA states sell or use their available allocation under a TAC, which can be fished anywhere in the WCPF Convention Area. In addition, the PNA states continue to charge access fees for the purposes of granting permission to physically access the fishing grounds within their EEZs (and pool this access much in the same way as under the current FSMA); or
- under any allocation regime: Abandon the VDS and continue with the USMLT and the FSMA as mechanisms to leverage development assistance and domestic industry development. In this scenario, PNA States could make sale of allocated units conditional on domestication in much the same way as the current FSMA.

Conclusion

Although an infinite number of allocation options could be considered for the WCPFC, this chapter sets out several potential models that investigate the implications of a coastal state/high seas approach. Placed in the context of the broader benefits of an allocation based regime these approaches could improve the access and resource security of FFA States, but it is likely to require some compromises on the sharing of resources across all members.

Bibliography

Australian Government, Email from Department of Agriculture, Fisheries and Forestry to Executive Secretary of the WCPFC, dated 7 September 2007, available at [http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20\[Allocation\].pdf](http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20[Allocation].pdf)

Bjorndal, T. and Munro, G. *The Economics of Fisheries Management: A Survey*, Edward Elgar, Cheltenham, 1999.

Chand, S., Grafton., R.Q. and Petersen, E. 'Multilateral Governance of Fisheries: Management and Cooperation in the Western and Central Pacific Tuna Fisheries' in *Marine Resource Economics*, Vol. 18, 2003, pp. 329-344.

Convention On The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean (WCPFC) (PITSE 5) Done At Honolulu, Hawaii, 5 September 2000, available at: http://www.paclii.org/cgi-bin/sinodisp/pits/en/treaty_database/2000/4.html?query=Western%20and%20Central%20Pacific%20Fisheries

Davis, D. and Gartside, D. F. 'Challenges for Economic Policy in Sustainable Management of Marine Natural Resources in *Ecological Economics*, Vol. 36, No. 2, 2001, pp. 223-236.

Federated States Of Micronesia Arrangement for Regional Fisheries Access done at Honiara, Solomon Islands, 30 November 1994, entered into force 23 September 1995 available at: http://www.paclii.org/pits/en/treaty_database/1994/19.html

FFA, *Draft WCPFC Conservation and Management Measure to Establish a WCPFC Vessel Chartering Scheme*, WCPFC3-2006-DP06 Rev. 1, submitted to the WCPFC Third Regular Session, 11-15 December 2006, Apia, Samoa.

FFA, Information Sheet 07/01: Vessel Day Scheme (VDS) Implementation (Parties to the Nauru Agreement), 2007, available at: http://www.ffa.int/system/files/VDS+information+Sheet+07_01.pdf

Fisheries Agency of Japan. *Annual Report - Part 1, Information on Fisheries, Research and Statistics WCPFC-SC3-AR Part1/WP-13*. Paper presented at the Scientific Committee Third Regular Session, 13-24 August, Honolulu, USA, 2007.

Gillett, R. *A Study of Tuna Industry Development Aspirations of FFA Member Countries*, A report prepared for the Forum Fisheries Agency, Honiara, Solomon Islands, 2008.

Gordon, H. S. 'The Economic Theory of a Common-Property Resource: The Fishery' in *The Journal of Political Economy*, Vol. 62, No. 2, 1954, pp. 124-142.

Government of Japan, Letter from Ministry of Agriculture, Forestry and Fisheries to Executive Secretary of WCPFC, dated 31 August 2007 available at [http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20\[Allocation\].pdf](http://www.wcpfc.int/wcpfc4/pdf/WCPFC4-2007-14%20[Allocation].pdf)

Grafton, R. Q. 'Individual Transferable Quotas: Theory and Practice' in *Reviews in Fish Biology and Fisheries*, Vol. 6, 1996, pp. 5-20.

Grafton, R. Q., Kirkley, J., Kompas, T. and Squires, D. *Economics of Fisheries Management*, Ashgate, 2006.

Grafton, R.Q., Bjørndal, T., Campbell, D., Campbell, H.F., Clark, C.W., Connor, R., Dupont, D., Hannesson, R., Hilborn, R., Kirkley, J., Kompas, T., Lane, D., Munro, G.R., Pascoe, S., Squires, D., Steinshamn, S.I., Turriss, B.R. and Weninger, Q. 'Incentive Based Approaches to Sustainable Fisheries, in *Canadian Journal of Fisheries and Aquatic Sciences*, Vol. 63, No. 3, 2006, pp. 699-710.

Hampton, J., Langley, A., Kleiber, P. *Stock Assessment of Bigeye Tuna In The Western And Central Pacific Ocean, Including An Analysis Of Management Options*, Scientific Committee Second Regular Session, 7-18 August, Manila, Philippines, WCPFC-SC2-2006/SA WP-2, 2006.

Hampton, J., Langley, A., Kleiber, P. *Stock Assessment of Yellowfin Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*, Scientific Committee Second Regular Session, 7-18 August, Manila, Philippines, WCPFC-SC2-2006/SA WP-1, 2006.

Kompas, T. 'Fisheries Management - Economic Efficiency and Concept of 'Maximum Economic Yield' in *Australian Commodities*, Vol. 12, No. 1, 2005, pp. 152-160.

Langley, A. and Hampton, J. *Stock Assessment of Albacore Tuna in the South Pacific Ocean*, 1st Meeting of the Scientific Committee of the Western and Central Pacific Fisheries Commission, Noumea, New Caledonia, 2005.

Langley, A., Hampton, J. and Ogura, M. *Stock Assessment of Skipjack Tuna in the Western and Central Pacific Ocean*, 1st Meeting of the Scientific Committee of the Western and Central Pacific Fisheries Commission, 8-19 August, Noumea, New Caledonia, WCPFC-SC1, 2005.

Lehodey, P. 'The Pelagic Ecosystem of the Tropical Pacific Ocean: Dynamic Spatial Modelling and Biological Consequences of ENSO' in *Progress In Oceanography*, Vol. 49, No. 1-4, 2001, pp. 439-468.

Moloney, D.G. and Pearse, P.H. 'Quantitative Rights as an Instrument for Regulating Commercial Fisheries' in *Journal of Fisheries Resources Board*, Canada, Vol. 36, 1979, pp. 859-866

Marine Resource Assessment Group (MRAG) 2006 *Allocation Issues for WCPFC Tuna Resources: A Report for the WCPFC Secretariat*, 2006, available at www.wcpfc.int

Mathew Hooper, pers com. 4 February 2008.

Matsunaga, H., O, H., Uosaki, K., Sato, K., Semba Y. and Miyabe, N. *National Tuna Fishery Report: Japan WCPFC-SC2-2006*. Paper presented at the Scientific Committee Second Regular Session, 7-18 August, Manila, Philippines, 2006.

Parris (forthcoming) *Governing the Western and Central Pacific Tuna Fisheries in a Complex World*, Chapter in unpublished PhD Thesis, The Crawford School of Economics and Government, The Australian National University, 2009.

Parris H (forthcoming) *Allocation Based Governance in the Western and Central Pacific Fisheries Commission: who gets what, where and why?* Chapter in unpublished PhD thesis, Crawford School of Economics and Government, The Australian National University, 2009.

Parris, H. (forthcoming) *Is the Western and Central Pacific Fisheries Commission meeting its conservation and management objectives?* Chapter in PhD Thesis, unpublished manuscript, The Crawford School of Economics and Government, The Australian National University 2009.

Parris, H., Wright, A., Cartwright, I. (forthcoming) 'The Challenge of Fisheries Governance Post UNFSA: The Case of the Western and Central Pacific Fisheries' in Grafton, R.Q., Hilborn, R., Squires, D., Williams, M. and Tait, M. (eds) *Handbook of Marine Fisheries Conservation and Management*, Oxford University Press, Oxford, for publication late 2009.

PNA States: FFA *Vessel Day Scheme (VDS) Implementation* Information Sheet 07/01, 2007, available www.ffa.int, accessed 1 September, 2007.

Reid, C. *Value of WCPO Tuna Fisheries*, 2007, database available at www.ffa.int

Statement of the Republic of the Marshall Islands to WCPFC Plenary on issue of Tuvalu in WCPFC, 2006.

Treaty On Fisheries Between The Governments Of Certain Pacific Island States And The Government Of The United States Of America, Port Moresby, 2 April 1987, entry into force: 15 June 1988 available at: <http://www.pacii.org/cgi->

bin/sinodisp/pits/en/treaty_database/1987/2.html?query=United%20States%20and%20fish

United Nations, 'United Nations Convention on the Law of the Sea', signed at Montego Bay, Jamaica, on 10 December 1982, in *International Legal Materials*, No. 21, 1982, pp. 1261-1354.

WCPFC website, *Conservation and Management Measures and Resolutions*, updated on 05/03/2008, cited 30 May 2008. <http://www.wcpfc.int>

WCPFC, *Conservation and Management for bigeye and yellowfin in the Western and Central Pacific Ocean*, CMM 2008-01, adopted at the Fifth Regular Session, Busan, Korea, 2008.

WCPFC, *Conservation and Management for Bigeye and Yellowfin in the Western and Central Pacific Ocean CMM 2008-01*, agreed at the Fifth Regular Session, Busan, Korea, 2008

WCPFC, *Conservation And Management Measures for Bigeye And Yellowfin Tuna in the Western And Central Pacific Ocean*, adopted at Second Regular Session, 12 - 16 December, Pohnpei, Federated States of Micronesia, 2005.

WCPFC, *Purse Seine Effort In The Zones Of Non-PNA CCMs And On The High Seas WCPFC-TCC4-2008/13*, 29 August 2008, Paper presented at the Technical and Compliance Committee Fourth Regular Session, 2-7 October 2008, Pohnpei, Federated States of Micronesia, 2008.

WCPFC, *Purse Seine Effort in the Zones of Non-PNA CCMs and on the high seas WCPFC-TCC4-2008/13 Supplementary*, dated 24 September 2008, Technical and Compliance Committee Fourth Regular Session, 2-7 October 2008, Pohnpei, Federated States of Micronesia, 2008.

WCPFC, Western and Central Pacific Fisheries Commission website homepage, cited December 2007, <http://www.wcpfc.int>

WCPFC, *Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Third Regular Session, Final Report*, 11 - 15 December Apia, Samoa, 2006.

12. Implementation of the Precautionary Approach and Reference Points

Les Clark

Introduction

This chapter addresses an issue that has arisen in the implementation of the provisions of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC Convention) relating to the precautionary approach, reference points and the adoption of conservation and management measures. The issue is the apparent need to reconcile the provisions relating to the application of the precautionary approach with the provision for the maximum sustainable yield (MSY)-related target of conservation and management measures to be qualified by factors including the special requirements of small island developing states. There have been differences in views among Pacific Islands Forum Fisheries Agency (FFA) members and regional organisations on the appropriate approach to implementation of these provisions which need to be resolved for progress to be made in the Western and Central Pacific Fisheries Commission (WCPFC), especially with respect to the adoption of longer-term management strategies for the multi-species tropical tuna fisheries.

Background

Article 5 of the WCPFC Convention (Principles and Measures for Conservation and Management) includes as requirements for WCPFC members to:

- (a) adopt measures to ensure long-term sustainability of highly migratory fish stocks in the Convention Area and promote the objective of their optimum utilization;
- (b) ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States in the Convention Area, particularly small island developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

- (c) apply the precautionary approach in accordance with this Convention and all relevant internationally agreed standards and recommended practices and procedures.¹

The WCPF Convention in Article 7 requires these principles to also be applied by coastal States within their exclusive economic zones (EEZs). The application of the precautionary approach is elaborated in Article 6 of the Convention (set out in Attachment I to this chapter) which incorporates by reference the Guidelines for the Application of Precautionary Reference Points in Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks from Annex II of the United Nations Fish Stocks Agreement (UNFSA) (set out in Attachment II to this chapter). Key elements of the precautionary approach for the purposes of this analysis are:

- the use of stock-specific precautionary reference points, including conservation, or limit, reference points and management, or target, reference points. Limit reference points set boundaries which are intended to constrain harvesting within safe biological limits within which the stocks can produce maximum sustainable yield. Target reference points are intended to meet management objectives;
- reference points to be used to trigger pre-agreed conservation and management action; and
- management strategies to ensure that the risk of exceeding limit reference points is very low. If a stock falls below a limit reference point or is at risk of falling below such a reference point, conservation and management action should be initiated to facilitate stock recovery. Fishery management strategies to ensure that target reference points are not exceeded on average.

And most importantly for this discussion,

- F_{msy} should be regarded as a minimum standard for limit reference points. For stocks which are not overfished, fishery management strategies shall ensure that fishing mortality does not exceed F_{msy} and that the biomass does not fall below a predefined threshold.

The issue arising from these texts that has emerged in WCPFC-related discussions is that:

- on the one hand, the guidelines for the application of precautionary reference points in Annex II of the UNFSA appear to require the adoption of F_{msy} as a limit reference point, which would not allow the adoption of F_{msy} as a target reference point or the adoption of strategies and measures that involved overfishing of a stock;

¹ WCPF Convention, Article 5.

- on the other hand, Article 5 (b) appears to provide some flexibility in the adoption of measures providing for fishing at levels at or beyond those consistent with MSY for economic and environmental reasons.

Analysis

The Management Issue

Normally, and for most of the stocks covered by the WCPF Convention, there would be no question of considering levels of fishing mortality beyond those associated with MSY, since that reduces yields and increases costs. In fact, it will usually make biological, ecological and economic sense to keep fishing mortality significantly below F_{msy} and the biomass significantly above B_{msy} , for reasons including the increased risks to stock sustainability and the greater effort at higher costs required as effort approaches MSY-related levels.

The question turns then on whether there are “relevant *environmental and economic factors*” associated with any significant management issues in the WCPFC that would lead to consideration of levels of effort at or beyond those associated with F_{msy} (i.e. overfishing) and raise the potential conflict between Article 5 (b) of the WCPF Convention and paragraph 7 of the UNFSA.

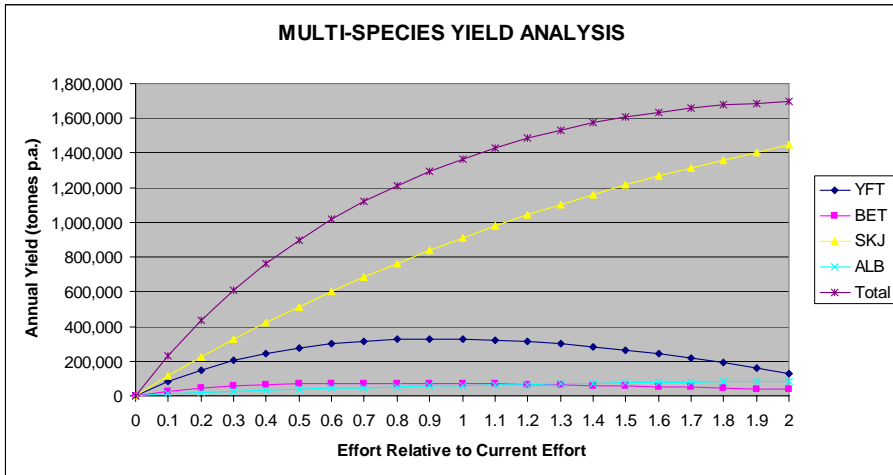
The most important among the “relevant economic and environmental factors” referred to in Article 5 (b), are multi-species considerations. These can take a range of forms but for this chapter, the major consideration is that of the occurrence of species in the catch that have different susceptibilities to fishing, so that it is not possible to fish all stocks at optimal levels. In such a fishery, fishing the most resilient stocks at MSY risks damaging the reproductive potential capacity of less resilient stocks while restricting fishing effort to that associated with MSY for the least resilient stocks leaves other, possibly major stocks, substantially under-utilised.

This is precisely the case with tropical tuna fisheries. Bigeye tuna is typically the most susceptible of the major stocks to fishing. However, in the Atlantic, Indian and Western and Eastern Pacific Oceans, feasible/acceptable measures to conserve bigeye typically mean reducing effort on stocks such as skipjack, and in some cases yellowfin, below optimal levels. The apparent failures to conserve bigeye stocks at levels above B_{msy} in those regions can largely be traced to an unwillingness by at least some members of the relevant commissions to make the trade-off of losses in skipjack and yellowfin for the gains in bigeye.

That trade-off is particularly sharp in the Western and Central Pacific. It is illustrated in the following multi-species yield curve which indicates broadly that

if the 25% reduction in effort recommended by the WCPFC Scientific Committee in 2007 to maintain bigeye biomass at B_{msy} was applied as across the board effort cuts, the result in terms of yields would be a gain of around 3,000 tonnes annually in bigeye yield, and a loss of around 200,000 tonnes annually in skipjack yield.

Figure 1: Multi-Species Yield Analysis



If a more precautionary approach to maintaining bigeye biomass is adopted at an appropriate level above the estimated B_{msy} ; for example at 25% above, is estimated to require reductions in fishing effort on bigeye of around 40%; while adopting F_{msy} as a limit reference point is likely to require a reduction in fishing effort of around 50%.² While it should be possible to reduce fishing effort on bigeye by 25% with relatively small potential losses in overall fisheries net benefits through measures targeted at reduced fishing mortality from fish aggregating devices (FADs) and moderate reductions in fishing effort on longlining targeting bigeye, reductions in fishing effort of 40% to 50% on bigeye are likely to come at a much higher price in terms of overall net benefits.

In addition, most of the benefits from the bigeye yield gain and associated gains in catch rates would accrue to fishing outside FFA members' waters, while most of the costs associated with reduced skipjack yields would be borne by fishing inside FFA members' waters. There might also be some costs to FFA members from foregone albacore yields if measures to conserve bigeye required FFA members to limit fishing effort in their albacore longline fisheries below optimal levels.

² Hampton et al., 2006.

This is not the whole story. There are opportunities to frame measures which reduce fishing mortality on bigeye with lesser impacts on bigeye and possibly albacore than simple across-the-board effort cuts by targeting reductions in effort on fishing operations that have the greatest impact on bigeye stocks such as purse seining on floating objects and longlining targeting bigeye. There also appear to be opportunities to make fishing methods and forms of operation more selective so that catches of bigeye can be reduced in some fisheries with much lesser impacts on catches of other species. There may also be benefits in terms of skipjack yields and catch values from measures such as reducing sets on floating objects to reduce catches of juvenile bigeye, and reduced bycatch. In addition, there may be opportunities for compensatory arrangements so that Pacific Island States that incur losses from measures to conserve bigeye could be compensated by those who gain.

However, and notwithstanding these considerations, there remains the prospect that limiting fishing effort on bigeye below that associated with F_{msy} and maintaining the bigeye stock above B_{msy} may require effort on albacore and skipjack to be limited below optimal levels in ways that would be particularly burdensome on Pacific Island States.

FFA Position

This issue has not been formally discussed within the FFA process for a long time. FFA members adopted in 1995³ as one of principles for the negotiation of the WCPFC Convention within the Multilateral High Level Conference on South Pacific Tuna Fisheries (MHLHC) process to “prevent any decrease in the size of harvested populations below those necessary to ensure their stable recruitment.”⁴ More recently, there has been a difference in view among FFA members and technical experts on the issue at different times within the Forum Fisheries Committee caucus at WCPFC sessions, in FFA workshops, and in the WCPFC Scientific Committee, in which:

- some have argued that the WCPFC Convention by incorporation of Annex II of the UNFSA requires F_{msy} and B_{msy} to be used as limit reference points, which means that the WCPFC may not adopt strategies and measures that would result in overfishing of bigeye in order to promote the optimum utilization of skipjack and albacore;
- others, notably Pacific Island participants, have argued that the WCPFC Convention explicitly provides for economic factors, including their special requirements and multi-species considerations, to be taken into account and that the WCPFC may, if necessary, adopt measures that would involve

³ Forum Fisheries Committee (FFC), 1995.

⁴ Similar wording, with qualification, occurs in the CCAMLR Convention.

overfishing of bigeye in order to promote optimum utilization of skipjack and albacore, as along as the bigeye biomass remains above some limit level necessary to ensure appropriate levels of reproduction/recruitment, i.e., that the overfishing level is sustainable. Some Pacific Island participants in the Multilateral High Level Conference recall their understanding that Article 5 (b) was specifically modified for this purpose, and that this was an important element in the preparation of the WCPF Convention.

The Texts

The language of Article 5 (b) is not new. It comes from Article 61 of the United Nations Convention on the Law of the Sea (LOSC), relating to conservation of the living marine resources of the EEZ, and can be found in the fisheries legislation of most FFA members. In the context of management of EEZ resources, it has long been interpreted as providing substantial flexibility to the coastal State:

It seems abundantly clear that (if) a coastal State is not obligated to maintain abundance at an MSY level ... This establishes that a coastal State is not required to manage fisheries to produce the maximum sustainable yield if it does not wish to do so. Instead the coastal State is expressly authorized to manage for yields that are suggested by its environmental and economic interests.⁵

and as “implicitly referring to multi-species considerations.”⁶

In some recent discussions, it has been suggested that there is some ambiguity in Article 5 (b) with the qualifier being linked to the “measures”, the “levels” or “maximum sustainable yield” in some discussions related to the WCPFC’s work. However, when the text in Article 5 (b) is written in this way:

ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at or above B_{msy} , as qualified by relevant environmental and economic factors, ...

it seems clear that the qualifier applies to the biomass level. This means that measures must be designed to maintain stocks at or above B_{msy} unless there are environmental or economic reasons otherwise. It should also be clear that the qualifier can only apply to allow a lesser standard. Any stock level above B_{msy} can produce MSY, so the qualifier is not needed to support a higher standard of biomass maintenance – it can only have the effect of supporting a lower standard.

In addition, it should be clear that the effect of the qualifier is to specifically enable the Commission to adopt measures that will not maintain stocks at or above

⁵ Burke, 1983.

⁶ Caddy and Mahon, 1995.

B_{msy} . Without the qualifier, the Commission is required to maintain stocks at or above B_{msy} and is free to adopt measures that maintain stocks well above B_{msy} if it chooses – and it may do so for reasons including those related to the qualifying factors.

The main issue that has arisen with respect to Article 5 (b), especially the qualifying language, is its standing alongside the principle of the application of the precautionary approach, and what happens when there is an apparent conflict between Article 5 (b) and the standards in paragraph 7 of Annex II of the UNFSA, that are incorporated as part of the precautionary approach that WCPFC members are required to apply under Article 5 (c), as discussed below.

The language of Annex II of the UNFSA leaves room for discussion about the status of Annex II as “guidelines”, its standing vis-à-vis the Article 5 (b) qualifier, and the use of “should” rather than “shall” with reference to the use of F_{msy} in paragraph 7. However, it is clear that:

- Annex II is an integral part of the WCPF Convention;
- it prescribes F_{msy} as a minimum standard without being precise about the stocks to which this prescription applies;
- as part of the framework for the application of the precautionary approach, which is the subject of a separate article as well as the reference in Article 5 (c), there is relatively great force attached to Annex II and therefore to the standards in paragraph 7;
- however, this can not completely override the effect of the Article 5 (b) qualifier.

The divergence in views emerges at this point. Those supporting the potential scope for the WCPFC to apply the Article 5 (b) qualifier recall the history of that text and its importance to Pacific Island States along with the “without prejudice” chapeau to Article 10 as part of the package to which they signed up in the WCPF Convention, and the general understanding at that time that the WCPF Convention did not preclude the adoption of lower minimum standards than F_{msy} . Those supporting the interpretation of F_{msy} as a mandatory minimum standard point to the force of the relevant provisions within the WCPF Convention, and might also argue that international law on this issue has moved on to give greater force to the precautionary approach and the minimum standards in Annex II.

One point of convergence in the discussions is the idea of the Annex II minimum standards as, at least, a starting point, or default levels. However, there is a divergence of views on what this means. To some, the “default” standard is one that is used unless there is agreement otherwise. To others, the “default” standard is one that applies unless there are good reasons otherwise, noting that multi-species considerations may provide those reasons.

A further aspect is – if not F_{msy} , as a minimum standard for limit reference points, then what? Article 61 of the LOSC requires coastal States to apply these minimum standards in their EEZs:

- a) ensure that the maintenance of the living resources in the exclusive economic zone *is not endangered by over-exploitation*; and
- b) maintain or restore populations of associated and dependent species affected by fishing *above levels at which their reproduction may become seriously threatened*.⁷

These concepts are further developed in the UNFSA, and then taken up with some modification in the WCPF Convention, which includes as functions of the Commission in Article 10, to adopt measures to

- a) ensure *the long-term sustainability* of highly migratory fish stocks; and
- b) maintain or restore populations of non-target, and associated and dependent species, above levels *at which their reproduction may become seriously threatened*.⁸

No real work has been done on trying to define and measure biomass and fishing mortality levels for Western and Central Pacific Ocean (WCPO) tuna stocks corresponding to points at which reproduction of stocks may be seriously threatened, recruitment becomes unstable or long-term viability is threatened, but the estimated recruitment-spawning biomass relationship for bigeye below illustrates the idea, noting that:

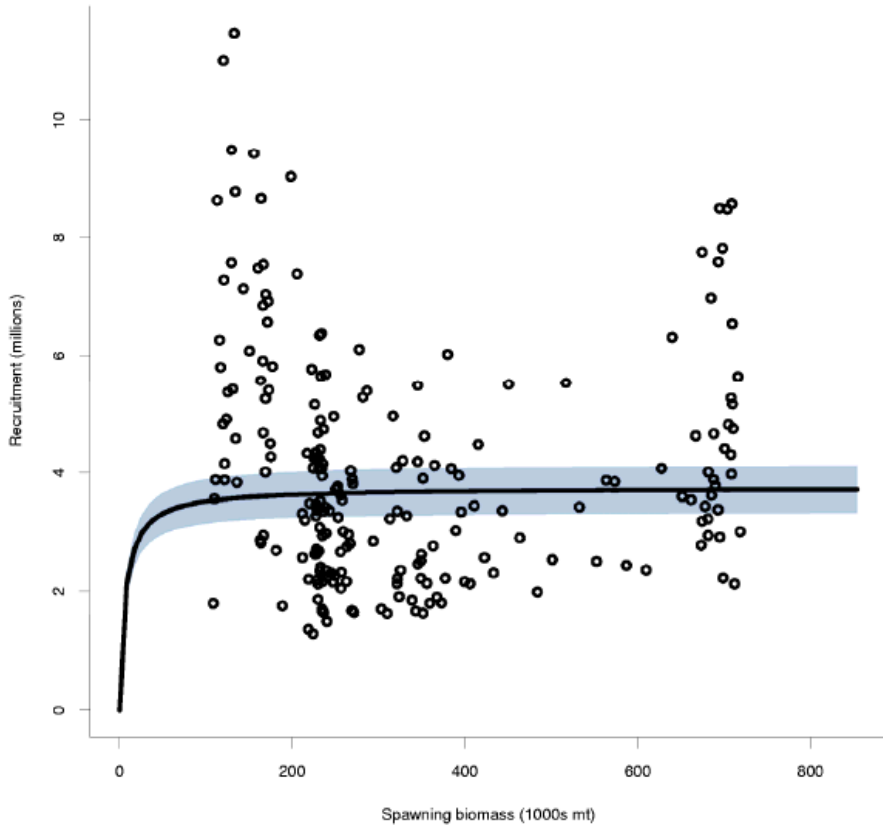
- the initial bigeye spawning stock biomass is estimated as around 560,000 tonnes;
- the spawning biomass corresponding to MSY is estimated as around 100,000 tonnes;
- the current biomass is estimated as around 120,000 tonnes; and
- spawning biomass levels at which reproduction of stocks may be seriously threatened, recruitment becomes unstable or long-term viability is threatened probably lie somewhere below 100,000 tonnes, but these are points that must be associated with very low levels of risk in any management strategy – generally proposed as less than 2%.⁹

⁷ LOSC, Article 61.

⁸ Reference quotation please

⁹ From Hampton et al., 2006.

Figure 2: Estimated relationship between equilibrium recruitment and equilibrium spawning biomass in the 2006 WCPFC Bigeye Assessment.



Note: The grey area indicates the 95% confidence region. Estimated recruitment-spawning biomass points are plotted as open circles.

National Practice

Many countries have included elements from the relevant texts in some form in national legislation, but very few have operationalised them. New Zealand, the United States and Australia are examples of countries with laws and formal policies that set standards for conservation and management measures. These countries include specific provisions in their legislation relating to the trade-offs that arise from multi-species fishery management considerations.

New Zealand law requires the Minister to set a total allowable catch (TAC) at a level that maintains the stock at or above B_{msy} , with a limited range of exceptions.

One exception relates to the setting of a TAC that allows the catch of a key target species to be maintained without being unduly constrained by the need to apply a target based on MSY-related reference points to minor bycatch stocks. Under the recent draft Harvest Strategy Standard for New Zealand Fisheries¹⁰ a minimum standard for such cases is that the stock must be maintained at or above the soft limit of $\frac{1}{2} B_{MSY}$ or $20\% B_0$, whichever is higher. However, the application of this exception is subject to stringent conditions, which include the following and this exception provision has never been invoked:

- a) the stock is taken primarily as an incidental catch during the taking of one or more other stocks and is only a small proportion of the combined catch of the stock and other stocks or stocks;
- b) the total benefits of managing the stock at a level other than that permitted under section 13 outweigh the total costs; and
- c) the stock is able to be maintained above a level that ensures its long-term viability.

The tropical tuna fishery stocks, and the bigeye stock in particular, would not meet these conditions.

In a similar way, the United States National Standard Guidelines for implementation of the national standards for sustainable fisheries management set out in the Magnuson-Stevens Fishery Conservation and Management Act allow exceptions to the requirement to prevent overfishing in the case of a mixed-stock complex. If one species in the complex is harvested at Optimum Yield, overfishing of other components in the complex may occur if:

- (1) long-term net benefits to the nation will be obtained *and*;
- (2) similar long-term net benefits cannot be obtained by modification of fleet behavior or gear characteristics or other operational characteristics to prevent overfishing; *and*
- (3) the resulting fishing mortality rate will not cause any stock or ecologically significant unit to require protection under the Endangered Species Act.¹¹

The recently adopted harvest standards for Australian Commonwealth Fisheries include these elements for the management of multi-species fisheries:

- a) within the Policy
 - judgment needs to be exercised;
 - alternate reference points may be determined;
 - where a harvest strategy applies to a multi-species fishery, it may be appropriate for some species to be maintained below B_{msy} , but always above B_{lim} to ensure that the fishery maximizes net economic returns;

¹⁰ Ministry of Fisheries, 2007.

¹¹ US NMFS, 1998.

b) within the Guidelines

- Maximim Economic Yield (MEY) applies to the fishery as a whole, and is optimized across all species. This may result in some species being fished at levels that will result in their biomass being maintained at levels below their target reference point (i.e. B_{mey}). In such cases, the biomass must be maintained above B_{lim} (where the proxy for B_{lim} is 50% of B_{msy}).¹²

The Australian Fisheries Management Authority (AFMA) is in the process of applying these standards to two major multi-species Australian tuna and billfish fisheries.

Some features of these three national cases in respect of reference points for multi-species fisheries are:

- all include provisions to allow for overfishing of stocks in multi-species fisheries if necessary to optimize yields from the fishery, subject to conditions of varying stringency;
- all apparently apply the same standards to highly migratory and straddling stocks as to other stocks, but where appropriate, apply the applicable standards of any international management organisation or arrangement for jointly-managed stocks.

Practice of Other RFMOs

A good review of the practice of other RFMOs with respect to reference points was included in a report presented to the WCPFC Scientific Committee in 2007.¹³ The following table summarises that information, and shows that none of these organisations responsible for highly migratory fish stocks and straddling stocks have adopted the UNFSA Annex II standards for limit reference points, even for target species.

¹² DAFF, 2007.

¹³ Davies and Polacheck, 2007.

Table 1: RFMO Reference Point Practice

	LIMIT REFERENCE POINTS	TARGET REFERENCE POINTS
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)	20% of initial Spawning Stock Biomass; with a probability of less than 10%	20% of initial Spawning Stock Biomass; with a probability of between 50 and 75%
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	Spawning Stock Biomass in 2004	Spawning Stock Biomass in 1980
Inter-American Tropical Tuna Commission (IATTC)		$F_{AMS\text{Y}}$, $B_{AMS\text{Y}}$
International Commission for the Conservation of Atlantic Tunas (ICCAT)		$F_{MS\text{Y}}$, $B_{MS\text{Y}}$
Indian Ocean Tuna Commission (IOTC)		$MS\text{Y}$, $F_{MS\text{Y}}$

A recent Chatham House report proposes as best practice with respect to limit reference points that:

The limit reference point for fishing mortality is no greater than the mortality giving maximum long-term sustainable yield, as specified in UNFSA. The limit reference point for stock size is the size below which it is known or expected that there is a much greater probability of significantly reduced recruitment but at which the probability of significantly reduced low recruitment is still small.¹⁴

but does not deal with the multi-species aspects discussed above.

Conclusions

- there is great force attached within the WCPF Convention to the application of the precautionary approach, and the use of MSY-based reference points;
- this places F_{msy} and B_{msy} and proxies for them at the centre of any consideration of conservation and management measures under the WCPF Convention as minimum standards;
- the UNFSA Annex II establishes F_{msy} and B_{msy} at least as starting points or default standards for limit reference points;

¹⁴ Lodge et al., 2007.

- this does not preclude WCPFC members from applying the qualifying factors in Article 5 (b) to adopt measures that result in a stock being fished at levels above F_{msy} . The most obvious application of these factors is to optimize yields in multi-species fisheries;
- the issue of whether the WCPFC and its members should use F_{msy} and B_{msy} as limit reference points in these cases is a matter of policy, not law;
- the WCPFC and its members are obliged to adopt management strategies, reference points and measures that are designed to maintain stocks above some measure of B_{lim} related to maintaining recruitment;
- unless there are good reasons otherwise, the WCPFC and its members should adopt management strategies, reference points and measures that are designed to keep fishing mortality significantly below F_{msy} and maintain stocks significantly above B_{msy} , and it is highly likely to be in all FFA members' interests for South Pacific albacore and skipjack to be managed in this way;
- the "good reasons otherwise" for which the WCPFC and its members might adopt management strategies, reference points and measures that do not maintain particular stocks significantly above B_{msy} include reasons related to relevant environmental and economic factors, including the special requirements of developing States in the Convention Area, particularly small island developing States;
- consideration of these economic trade-offs involved in conserving bigeye tuna at the possible cost of optimizing yields from other stocks will be important in the Commission's work on the conservation and management of bigeye tuna, and will likely be particularly important to Pacific Island States;
- progress on analyzing these trade-offs is likely to be important before progress can be made in adopting WCPFC reference points for bigeye tuna.

Bibliography

Burke, W. T. '1982 Convention On The Law Of The Sea Provisions On Conditions Of Access To Fisheries Subject To National Jurisdiction' in the *Report of the FAO Expert Consultation On The Conditions Of Access To The Fish Resources Of The Exclusive Economic Zones*, FAO Fisheries Report 293, 1983.

Caddy, J.F. and Mahon, R. *Reference Points For Fisheries Management*, FAO Fisheries Technical Paper No. 347, 1995.

Davies, C. and Polacheck, T. *A Brief Review Of The Use Of The Precautionary Approach and the Role of Target and Limit Reference Points and Management Strategy Evaluation in the Management Of Highly Migratory Fish Stocks*, WCPFC Working Paper, WCPFC-SC3-ME SWG/WP-3, 2007

Department of Agriculture, Fisheries & Forestry (DAFF), *Commonwealth Fisheries Harvest Strategy, Policy and Guidelines*, Australia, 2007.

Forum Fisheries Committee, Sub-Committee on Future Management Arrangements, Summary Record of Discussion of the 1st Meeting, 1995,

Hampton, J., Langley A. and Kleiber P., *Stock Assessment of Bigeye Tuna in the Western and Central Pacific Ocean, Including an Analysis of Management Options*, WCPFC Working Paper WCPFC-SC2 SA WP-2, 2006.

Lodge, M. W., Anderson D., Løbach T., Munro G., Sainsbury K. and Willock A., *Recommended Best Practices for Regional Fisheries Management Organizations: Report of an Independent Panel to Develop a Model for Improved Governance by Regional Fisheries Management Organisations*, Chatham House, 2007.

Ministry of Fisheries, *Harvest Strategy Standard for New Zealand Fisheries: Draft for Public Consultation*, New Zealand, 2007.

National Marine Fisheries Service, *Technical Guidance on the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act*, NOAA Technical Memorandum NMFS-F/SPO-31, United States, 1998.

Attachment I

Article 6

Application of the precautionary approach

1. In applying the precautionary approach, the members of the Commission shall:
 - (a) apply the guidelines set out in Annex II of the Agreement, which shall form an integral part of this Convention, and determine, on the basis of the best scientific information available, stock-specific reference points and the action to be taken if they are exceeded;
 - (b) take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distributions of fishing mortality and the impact of fishing activities on non-target and associated or dependent species, as well as existing and predicted oceanic, environmental and socio-economic conditions; and
 - (c) develop data collection and research programmes to assess the impact of fishing on non-target and associated or dependent species and their environment, and adopt plans where necessary to ensure the conservation of such species and to protect habitats of special concern.
2. Members of the Commission shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.
3. Members of the Commission shall take measures to ensure that, when reference points are approached, they will not be exceeded. In the event they are exceeded, members of the Commission shall, without delay, take the action determined under paragraph 1(a) to restore the stocks.
4. Where the status of target stocks or non-target or associated or dependent species is of concern, members of the Commission shall subject such stocks and species to enhanced monitoring in order to review their status and the efficacy of conservation and management measures. They shall revise those measures regularly in the light of new information.
5. For new or exploratory fisheries, members of the Commission shall adopt as soon as possible cautious conservation and management measures, including, inter alia, catch limits and effort limits. Such measures shall remain in force until there are sufficient data to allow assessment of the impact of the fisheries on the long-term sustainability of the stocks, whereupon

conservation and management measures based on that assessment shall be implemented. The latter measures shall, if appropriate, allow for the gradual development of the fisheries.

6. If a natural phenomenon has a significant adverse impact on the status of highly migratory fish stocks, members of the Commission shall adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impacts. Members of the Commission shall also adopt such measures on an emergency basis where fishing activity presents a serious threat to the sustainability of such stocks. Measures taken on an emergency basis shall be temporary and shall be based on the best scientific information available.

Attachment II

**Un Fish Stocks Agreement (UNFSA), Annex II
Guidelines for the Application of Precautionary Reference
Points In Conservation And Management Of Straddling Fish
Stocks And Highly Migratory Fish Stocks**

1. A precautionary reference point is an estimated value derived through an agreed scientific procedure, which corresponds to the state of the resource and of the fishery, and which can be used as a guide for fisheries management.
2. Two types of precautionary reference points should be used: conservation, or limit, reference points and management, or target, reference points. Limit reference points set boundaries which are intended to constrain harvesting within safe biological limits within which the stocks can produce maximum sustainable yield. Target reference points are intended to meet management objectives.
3. Precautionary reference points should be stock-specific to account, *inter alia*, for the reproductive capacity, the resilience of each stock and the characteristics of fisheries exploiting the stock, as well as other sources of mortality and major sources of uncertainty.
4. Management strategies shall seek to maintain or restore populations of harvested stocks, and where necessary associated or dependent species, at levels consistent with previously agreed precautionary reference points. Such reference points shall be used to trigger pre-agreed conservation and management action. Management strategies shall include measures which can be implemented when precautionary reference points are approached.
5. Fishery management strategies shall ensure that the risk of exceeding limit reference points is very low. If a stock falls below a limit reference point or is at risk of falling below such a reference point, conservation and management action should be initiated to facilitate stock recovery. Fishery management strategies shall ensure that target reference points are not exceeded on average.
6. When information for determining reference points for a fishery is poor or absent, provisional reference points shall be set. Provisional reference points may be established by analogy to similar and better-known stocks. In such situations, the fishery shall be subject to enhanced monitoring so as to enable revision of provisional reference points as improved information becomes available.

7. The fishing mortality rate which generates maximum sustainable yield should be regarded as a minimum standard for limit reference points. For stocks which are not overfished, fishery management strategies shall ensure that fishing mortality does not exceed that which corresponds to maximum sustainable yield, and that the biomass does not fall below a predefined threshold. For overfished stocks, the biomass which would produce maximum sustainable yield can serve as a rebuilding target.

13. Ecosystem Approach to Fisheries Management: Implementation Issues and Challenges for the Pacific Island States

Samasoni Sauni

Introduction

The ecosystem approach - a rhetoric concept or disguise of guilt. The art of managing fisheries has taken many turns. Recently, global attention has focused on the adoption of the ecosystem approach. Although there is much critique and debate on its central functions, the concept presents modern fisheries management regimes with fresh holistic insights towards correcting failed fisheries. The 'ecosystem-based management' is now a recurring priority item in global fisheries agendas and has gained much attention. It now influences management and policy decisions amongst regional fisheries management organizations (RFMOs), fisheries managers and scientists as well funding institutions and external actors.

The members of the Pacific Islands Forum Fisheries Agency (FFA) have now agreed to apply the concept to managing tuna fisheries within their national jurisdictions. However, there are significant implementation issues and challenges that are yet to be fully addressed. A real test in general terms of such commonly introduced concepts and initiatives is the practical ramifications, acceptance and effective implementation at the local stakeholders' level. There are significant challenges relating to the disparate levels of fisheries developments implemented, and policy instruments available amongst FFA 17 member countries and territories. Unlike the high island countries, for instance, the poor level of domestic tuna fisheries developments in low-lying atoll countries is partly explained by the lack of resources and capacity, limited opportunities and alternative developmental means. As such, there needs a harmonized and strategic approach towards the implementation of the ecosystem approach.

Fisheries continue to rank relatively high in national and regional agendas. It is not only because of cultural significance of the seas to Pacific peoples. However, in the face of globalization, Small Island States of the Pacific continue to fall back on their ocean resources for protein sustenance, alternative earnings, trade and transportation means. These oceanic resources are worth billions of dollars, but, these values degrade with unsustainable management and poor policy decisions towards use and functions of attributes in the mosaic of the marine ecological system. This realization of anthropogenic impacts and consequences on the resources remain a key challenge amongst resource managers, scientists and policy makers towards sustainable management. During the turn of the 21st century, this

has been an area of great interest to all interested stakeholders and Pacific Islands, as the challenge of elevated fishing pressure and over-fishing mounts against increasing demand for economic benefits and development aspirations.

The ecosystem approach to fisheries management is one management tool resource managers and scientists believe may work in addressing indiscriminate exploitation of resources and other influences on other species and the environment. The tool is by no means a perfect solution to fisheries and fishing problems. But it provides relevant links to explaining in some levels of details, with the availability of data and information, the interchanges and inter-linkages of various attributes. This means that in a given 'fishery' there are indeed attributes that forms the entire mosaic and any imbalance can have repercussions across many attributes, particularly during excessive impact (exploitation) on one attribute.

In a nutshell, the ecosystem concept puts into perspectives the issues and inter-relationships amongst each other.¹ One advantage is the ability to holistically address issues affecting resource, resource user and associated environment. The difficulty however is that not all the data and information is often available to usefully assess the mosaic of issues in any given 'fishery'. While research is encouraged to collect sufficient data needed for analytical work, the end results do not often become available during urgent policy and management decisions. Sometimes, it takes many years of research and data collection to make any sense out of management challenges and, to properly understand the attributes and the linkages. This challenge is paramount at the country level through implementation of policy decisions that deal with the mobility nature of regional tuna stocks. The challenge becomes particularly critical when decisions are forced into finalizations without the availability of sound data and scientific information. Some scholars refer to this as 'data less management' – a concept disputed in the scientific community, however often used by managers in the absence of scientific data.

This leads to the core of the problem in addressing key implementation challenges amongst the FFA member countries and territory. In tuna fisheries, the fundamental challenge is balancing development aspirations and sustainability issues with ecosystem and by-catch concerns. The challenge therefore rests on the balance between management option agreed and influenced by external actors, and realistic concerns of the implication at the national level. Nonetheless, the debate surrounding this continues and becoming an underlying priority agenda item in the Western and Central Pacific Fisheries Commission (WCPFC) and other regional fisheries forums. This chapter investigates the ecosystem approach to tuna fisheries in its practical application and implementation among vulnerable

¹ MRAG, 2002.

economies of Pacific Island countries and territories (PICTs). It also presents a suite of strategic directions in overcoming those implementation challenges.

Implementation Challenges and Lessons

The implementation challenges and lessons are discussed predominantly in the process of FFA Ecosystem Approach to Fisheries Management (EAFM) work amongst its members. These challenges include development processes on logistical arrangement constraints, workshop approach and materials, lack of wider stakeholder participation, conflicting opinions amongst stakeholder groups and with government, and post EAFM follow up and practical implementation. In the FFA EAFM framework, there are limited experiences in regard to the post EAFM work given at least only four countries have gone through the process to completion. An additional two countries have just recently completed this process and production of EAFM reports.

Development Process

The challenges vary from one country to the next, depending on the number of 'fisheries' under investigation. The consultations are carried out using a participatory process with a focus to encourage free discussion amongst the stakeholders on issues pertinent to the fishing industry. The process also influences the discussion to reflect on a range of issues from different perspectives of user groups. In essence, the challenges specifically rest on the conduct of stakeholder consultations, quality and quantity of materials formerly presented and disseminated, working group deliberations, and as well as facilitation support from key resource persons.

In order to fully comprehend the extent of the above challenging areas, it is crucial to highlight the details for further scrutiny. The details are well documented² and also found in the EAFM Guide;³ the latter of which is now in its fifth revision. Below is a revised summary of the lessons and observations gathered from series of stakeholder workshops and consultations as outlined in Sauni and Amos⁴.

Conduct/ Planning of Stakeholder Consultations

All in-country EAFM work is coordinated and managed by the FFA Secretariat, in consultation with resource persons from the Secretariat of the Pacific Community (SPC) and expert consultants. There are at least three separate in-country workshops conducted independent of each other; initially with a scoping

² Fletcher *et al.*, 2005.

³ Fletcher, 2008.

⁴ Sauni and Amos , 2007a, 2007b.

workshop, followed by stakeholder consultations and finally the presentation and expert discussion panel of the EAFM report. The exact timing of the workshops is determined by mutual agreement between host country and resource persons, at a time that best suits the schedules of fisheries personnel and stakeholder participants.

In most cases, it was difficult to establish a suitable time for workshops that is conveniently acceptable by everyone. In response, the FFA Secretariat in collaboration with the host country undertakes advance informal arrangements with tentative dates of such activities; and progressively finalizes the exact dates toward the deadlines. This would give advance notice to attract key relevant stakeholders and make necessary preparations for the meetings. The process is through collaborative efforts between FFA (including resource persons from SPC and consulting firms) and the host country (local fisheries administration). When this fails due to the unavailability of resource persons and stakeholders, a specific date is set with priority given to availability of stakeholders' in-country.

The increasing number of meetings that fisheries stakeholders and regional officials attend in a year is an influencing factor. Having EAFM meetings included in annual work plans at the beginning of each calendar year, is a good possibility. For most administrations and FFA, provisional meeting lists and work plans are normally available for quick reference towards the end of each year.

Workshop Materials

As described in the FFA EAFM Guide,⁵ resource persons prepare relevant but concise materials for each subject area. Additional background materials are also provided during the workshops. These relate to tuna fisheries in country, either in their original report form or compiled from information summaries. The presentations are often organized to introduce all the elements of the FFA EAFM Framework, highlighting the main stages and processes and with reference to examples. Also, brief presentations are prepared on the state of tuna resources, legal aspects and domestic fisheries perspectives.

The FFA Secretariat normally assesses the relevance and quality of materials used in the workshops. It is often a problem that the quality and amount of materials prepared may be too technical and voluminous. This, in turn, affects the ability of local participants to fully understand in order to prepare them well for group discussions. The workshop materials are sent electronically to host fisheries departments for further dissemination to participants, well in advance of the meetings.

⁵ Fletcher, 2008.

Working Group Exercises

A participatory process is adopted through working group exercises. Against each element of the EAFM, the groups are tasked to produce outputs, component trees of issues, risk assessment matrices (including prioritization of issues), and presentation of results. The group exercises are planned for each scoping and stakeholder consultation sessions, with the aim of systematically working through the issues and producing reporting matrices required for the EAFM report.

The main challenge rests on coordinating group discussions, ensuring there are no mis-understandings of EAFM and that issues are fairly debated, particularly where limited quantitative information is available to guide deliberations. In most cases, experiences were shared against each of the issues raised which often identified possible solutions (or mix of solutions) that were considered most appropriate from the participants' perspectives and experiences. However, it becomes a problem if there are significant differences of opinions on issues, especially between government and industry participants.

Sometimes the disparity of views also occurs within government and private sector agencies representatives. In moderating the discussion, facilitators often make inferences or references of similar situations that occur in other countries. Also, real case studies and reliable information are explained to group participants over certain issues. The aim is to add value and have a focused discussion that could generate further insights into understanding the underlying causes and impacts of the issue(s). One major shortfall of working group exercises, depending on the amount and extent of issues being debated, is the limited time for each working group session. As well, the lack of participation from key stakeholders is a constraint in this participatory process.

Facilitation Role

The role of facilitators may not be challenging. But the cause of concern relates more to instances where there is confusion and contradictions arise over interpretation and/or understanding the EAFM processes. Similarly, a situation may surface where facilitators debate the issues profusely, and discussions enter into questioning of each other's level of understanding over certain issues or aspects of the FFA EAFM process.

This can be caused by the lack of briefing and exchange of understanding over the process and other matters prior to the meetings. It is also possible that the problem is due to the lack of effective coordination by the FFA Secretariat to ensuring all facilitators understand their specific roles during the meetings.

Another way to curb this is to ensure everyone understands the EAFM processes, despite its limitations in some aspects. The aim is to encourage effective discussion amongst stakeholders and to achieve key outputs relevant for the EAFM report. The primary aim of the workshops is to encourage effective stakeholder participation, and to gather as much as possible feedback and inputs from stakeholders themselves.

Post EAFM Challenges

The formal process of developing EAFM reports ends during the final submission report to member countries. The stages of working towards an operational plan and legal framework under the EAFM process are the prerogative of member countries. These plans are brief and cover the implementation schedule that focus predominantly on the management reports section of the EAFM report. They describe in detail the management actions for each specific medium and high priority risk issues identified in the EAFM report. This covers the main headers of manpower resources, funding resources, timelines and reviews; and spreading across main areas of ecology, environment and socio-economic.

Progressing these stages further requires political will and support to ensure this work is adequately implemented, and that external technical assistance can be sought. Sauni and Amos⁶ outline a number of challenges which are further updated below:

Stakeholders' Understanding

Stakeholders lack an awareness of current information on the stocks and efforts currently in place, and the various inter-agency relationships and mandates. This is partly explained by the relevant information not necessarily filtering down to stakeholders. This is further exacerbated by sensitivities on some fisheries issues particularly in the areas of socio-economics and administration and governance. There is also confusion over priority issues, driven either by the lack of data to support the issues or the lack of clarity of national policies and priorities on fisheries. There are, in some countries, conflicts between agency responsibilities over tuna fisheries, particularly where more than one agency deals with tuna related matters. The ability to identify and address such governance related issues is one of the key benefits of the EAFM approach.

Institutional Structural Changes

Institutional structural changes can also create obstacles. For example, the departure of skilled staff, re-shuffling and reforming of fisheries agencies (e.g.

⁶ Sauni and Amos, 2007a, 2007b.

changes from department of ministry type model to fisheries authorities, or vice versa) further complicate matters in effective management of tuna fisheries. In the consultations, the stakeholders often raise concerns that numerous Tuna Management Plans in the past were not fully implemented. There were few consultations and key stakeholders did not participate fully in the development process of the plans, and that these plans were not circulated widely and that people lack awareness of it. Also, there is a sense of participants protecting their interests by way of their contributions to the discussion. Some countries point to the lack of political will and government interventions, corruption as well as the lack of financial and technical support to implement tuna management plans.

Stakeholder Exchanges

The above experiences add to the difficulty to coordinate in-country EAFM consultations. However, the process encourages participants to raise those issues in EAFM national workshops. These issues are then assessed succinctly through the prioritization and risk assessment steps in order to arrive at possible management responses. In most cases, new ideas and proposals flagged during the consultations present new opportunities for government officials in decision making positions to follow such actions through to full implementation. Similarly, the discussion also benefits stakeholders in the private sector to take on the new challenges in the fishing industry. These stakeholder exchanges require thorough understanding to address ongoing issues with fisheries authorities as well as implementing management responses within their own fishing businesses.

Political Will and Support

In almost all EAFM stakeholder consultations, there exists relevant informal debate and conflict of ideas and opinions, between the formal and informal sectors in the tuna industry. The industry stakeholders often argue on the lack of financial, technical and logistical support or provision of essential services from the government to foster sustainable and profitable onshore developments. The issues of government subsidy and relevant technical information and materials filtering down to industry stakeholders are often limited. For example, the industry stakeholders often request governments implement duty free or imposition of tax exemptions on fuel, oil, spare parts and other accessories commonly used by domestic tuna fleets. Also, there exists a lack of proper and adequate onshore facilities like fuel depot, wharf facility and berthing area, and skilled skippers and crews (which often results in the employment of foreign crews).

Infrastructure Support Services

However, during national EAFM consultations, the national governments counter-argue that there are current national and regional initiatives and projects in place that look into alternative and better means of developing tuna fisheries in the private sector. But first, government officials argue the need to have feasibility studies and related accounts of the major challenges and constraints, explore and identify development opportunities, develop or review strategic management and development plans and policy documentations and the implementation the plans. In more general terms, the government adopts and implements policies that are holistic and broadly addressing sustainability, economics and social issues and development aspirations of the country.

In knowing the state of the tuna resources and its environment, and development opportunities against the challenges and constraints, strategic responses to key issues experienced in the industry would be effectively addressed. This includes the construction or improvement of onshore-based facilities and services, allocation of licenses and related control limits, application of technical specifications on boats, use of monitoring, control and surveillance mechanisms, analyses on the use of subsidies and exemptions, as well as other incentives to encourage effective, sustainable and profitable management of domestic tuna fisheries. All these elements provide the basis for developing national EAFM reports that incorporates all the components of ecological, ecosystem, social and economic aspects of the tuna industry.

Evolving EAFM Process

In addition, national EAFM workshops and consultations further provide opportunities for improvements in the conduct and preparation of EAFM reports, Operational Plan, Legal framework and Policy platform and other related documentation. For instance, some lessons learnt in the process includes: keeping the EAFM report concise and short; improving the delivery of risk assessments for clarity among the participants; and encourage the use of non-technical languages during the consultations – possibly by engaging national fisheries officials. There is also a need for clear demarcation of jurisdictions between inshore and offshore fisheries, flexibility in approach, and linking the debate of issues to WCFC decisions, provision of workshop materials in advance, ensure local stakeholders drive the EAFM process and encourage local ownership of the EAFM reports.

Effective EAFM Challenges Amongst PICTs

The real test to the EAFM approach in the FFA framework is how best it can be adopted and implemented successfully. While the holistic management approach

is clear, the practical consequences of implementation remain a challenge. With the small sizes of fisheries administrations, lack of resources and capacity to deal with current issues, any additional management requirements would certainly require additional flow of resources and commitment. The diverse national policies and development aspirations relative to tuna fisheries amongst PICTs, which may often change with any change of governments, would further complicate progress in implementing EAFM. These key challenges are interrelated and are further discussed below.⁷

Ecosystem Approach - A Rhetoric Concept or Disguise of Guilt

A track record exists on failed fisheries developments in PICTs and the intensity of such failures potentially varies between countries. Amongst others, the key attributes are discussed earlier in the chapter; however ranging from institutional structures, governance, political support, stable investment environment and policies, lack of resources and capacity, stakeholders' participation and others. The ecosystem approach through the EAFM process is a holistic management tool, which strategically identifies and suggests management actions to address priority risk issues.

On the one hand, it can be described a 'rhetoric concept' given the high command of attention and global acceptance as one effective fisheries management tool to address failed fisheries. On the other hand, it is a disguise of guilt on fisheries experts for failing in their application of conventional fisheries management. Generally conventional fisheries management has failed in the past, and the EAFM process may correct such failures by accounting for the interrelationship/inter-linkages of systems through roles and attributes in a true setting of mosaic of ecological systems.

Lack/Shortage of Human and Financial Resources

The lack of skilled manpower and financial resources to implement policies and pursue legitimate fisheries developments are key elements which PICTs are still struggling to overcome. Failing this may lead to EAFM reports not effectively implemented, thus not achieving its intended use. Funding support is a common problem in fisheries developments throughout Pacific Island countries despite the millions of dollars worth of tuna resources in the Western and Central Pacific Ocean (WCPO). The bulk of funds from licensing and catches are channeled to government consolidated funds, and a small portion of which is used for fisheries management and development purposes in fisheries authorities. The general feeling in attitudes on the allocation of such funds has not been commensurate to the contribution of tuna fisheries in national GDPs and economies.

⁷ Also see Ferraris, 2007.

There are nonetheless, strenuous efforts to address this and there have been successes in some PICTs. There are pressures in government where the allocation of fisheries funds is disputed, regardless of its share in national gross domestic product (GDP), and elements of corruption from fishing companies to gain access. This can result in uncontrolled fishing beyond maximum sustainable yield levels.

The availability of skilled and ample staff in fisheries administrations vary greatly between PICTs. Over the years, this issue has been greatly addressed by the number of qualified and skilled graduates joining fisheries administrations. However, it would generally require time to build up experiences and, some of which are already holding influential and senior positions in countries. Also, the high turn over in skilled staff, career attractiveness and financial packages on offer influence retention of skilled staff.

Lack of access to finance to promote domestic fisheries development is lacking in most PICTs. In part, the lack of certainty over catch rates, and thus, future economic viability of domestic fishing fleets, seriously inhibits investment in domestic fisheries development. National development banks and financial institutions are very cautious about loaning investors the necessary capital to promote domestic industry development. In many cases, the same concerns exist at the Ministerial level, which creates difficulties in getting government support for domestic tuna fisheries development initiatives.

Competent Industry Groups and Effective Participation

No doubt the need for skilled and qualified personnel also extends to the fishing industry. Across PICTs there generally exists the lack of fisheries managerial and business skills, and broad understanding of stock assessments. This has led, in some instances, to failure and bankruptcy in some domestic fishing companies. Until such time, the growing capability and capacity amongst fishing industry groups is needed to improve the support towards effective decision making. This may lead on to the government regimes providing explicit allocation decisions between stakeholder groups. This relationship is crucial to advance the collection of fishery dependent data (spatio-temporal scale of catch and effort data) in the capture sector.

The devolution of decision making within the EAFM process to industry groups is paramount towards greater focus on fishing capture and processing sectors. Similarly the long term impact on the EAFM process would be a bonus giving competent stakeholders to implementing and managing sustainable fisheries. The importance of engaging industry is to reduce management cost and at the same time maximise benefits. For instance, in some countries, the fishing industry link

directly to commercial and recreational sectors and subsequently exerts impact on the environment.

Governance

Unless transparency, accountability and good governance are upheld it would be extremely difficult to have a successful ecosystem approach to fisheries management. The resource rents generated from the resources are commonly prone to corrupt activities. In the private sector it lacks stewards and investors have in some cases lost confidence in investing in PICTs. The short term outlook is that many players want access and invest in the resources. The response to these challenges is to reform and strengthen fisheries institutions.

Fisheries institutional reforms and strengthening often link to good fisheries legislation and are based on ecosystem principles (including precautionary) and clear objectives – a paramount requirement for good governance. In addition there may be merits in exercising flexibility in the delegation to fisheries management and arrangements, and provide power base to enter into institutional fisheries management plans. Also, it is important to revise management and statutory plans to reflect emerging fisheries issues and challenges.

Stable Investment Policy Environment

Getting the policy environment right is fundamental and should be based on a vision that focuses on good policy, law and management. In fisheries, it requires a legislative policy that is supported by whole-of-government fisheries policy. The sequence level of policy, law and management can be built concurrently and be flexible to changes in the political climate. It is also important to design the right policy that avoids the emergence of continuous problems in fisheries development projects. A common recurring issue is that initial designs of policies or projects are carried out by one or group of people (or consultants) but implemented by others. A greater relationship between design and implementation of fisheries programs is needed.

In PICTs investment needs to be tailored towards genuine fisheries opportunities, as well as exploring other investment opportunities that underpin fishing operations. It may not be just developing domestic fishing fleets in the capture sector but also on processing and provision of services (e.g. fuel, repair and transshipment). Sometimes it takes legitimate need for a good vision, policy and good staffing to be able to convince foreign investment in country. This includes the undertaking of fisheries reforms and strengthening exercises and that, any transitions or implementation of new changes would need to handle swiftly. PICTs

may wish to undertake reforms that should aim towards creating a stable and attractive investment location and policies, for example:

- reforming tax systems;
- lowering barriers to trade (tariff and non-tariff barriers); and
- invest on human capital through education and training.

In 2007, FFA members raised the need to create a stable and attractive investment environment for businesses to invest in domestic fisheries development. This can be addressed at both the national and sub-regional levels. It initially requires a stable policy environment at the national level and that PICTs may wish to limit the number of vessels allowed to enter the domestic fishery and fish in national waters. This means that large numbers of vessels will not enter the fishery in the future to compete with existing businesses for a share of the catch. Also, in order to stabilize fishing operations and investments, countries may opt for longer term licensing for domestic fleets. For example, the preference of longer licensing period such as three years instead of annual licenses.

Institutional Gaps

Given the broad element in the EAFM process there is a need for inter-agency relationship and collaboration. The agencies need to agree and keep well informed on the process to ensure smooth execution of activities that may require inputs from various agencies. Failing this may lead to failure in any undertakings in the EAFM process. The agencies involved need convincing and understanding on the work and the relevant details as to why they are pursuing such EAFM work.

Furthermore, the 'one stop approach' brings together relevant government agencies dealing with fishing and fisheries. This approach will successfully bridge the gaps across finance, customs, transport and social services agencies. The finance agency often imposes tax on fuel, customs dealing with papers on export and workers, flights increase to cover more travelers and goods for export and imports. Also there are social issues in the fishing industry that link to prostitution. Because there is money involved, inter-agency officials sometimes turn a blind eye to the issue, perhaps influenced by the lack of interest and motivation. The inter-agency working groups that were set up to address common issues lack competence and willingness to perform their roles efficiently.

In order to have significant changes, as an outcome of the EAFM process, it requires pursuing success in inter-agency collaboration and nominated working groups. This should work towards addressing minor problems and other priority issues, and also motivating officials dealing with fisheries matters.

Any form of institutional reforms would cost a lot. However, this reflects the key changes that are necessary to establish appropriate institutional models that deliver the necessary output levels anticipated from the fishing industry. Factors in the success or failure of any institutional strengthening and reform work include the critical level of career structure, the effectiveness of reformed fisheries activities, issues of corruption, efficiency in the workforce and ensuring the generation of maximum benefits in the overall fishing industry.

Political Will

The EAFM requires commitment and political will to carry it forward. Given the broad range of issues and management actions that are flagged in the EAFM report, it is important to have political backing for implementation. In this region, the collapse of fisheries development projects when funding and technical assistance terminates or projects close down remain a challenge amongst fisheries managers. While, there may be short term benefits realized in the duration of the projects, the long term benefits at the termination do not necessarily continue. The lessons are the lack of continuity backed by support from key stakeholders and agencies, downgrading of individual work performances of project counterparts. There is a need for ‘champions’ in influential positions, recognizing the risk in putting all hopes in one individual. The lesson was that ensuring sustainability in development projects requires people of high profile and respect on the ground to ensure effective implementation.

Many PICTs have serious constraints on their capacity to promote development in their domestic fisheries. This is simply because of their small administrations and small number of staff that are allocated to handle fisheries related issues. Also, there are limited government incentives provided in some jurisdictions to promote domestic tuna fishery development. In part this may relate to perceived failures in the past; as well as perceived achievements of domestic fisheries development. Also, fisheries and fishing may have ranked low in some government priorities.

Changing Priorities

PICTs have come a long way in the evolution of fisheries. The most important change is the transitional and gradual re-focus on objectives from maximizing economic benefits to adopting conservation and management approach – the EAFM process. The cross dramatic changes were strategic and systematic, such as the core change in administration and management to better improve fisheries structure and relevant skills. Some of the changing priorities are:

- the element of security access is important in the overall fisheries management, particularly the need for incorporation in relevant fisheries

management, particularly the need for incorporation in relevant fisheries management plans and regulations;

- the primary output of the EAFM process may be difficult to achieve if there are frequent changing priorities in country. Policy decisions and capacity building are critically important areas and needed to ensure better outcomes;
- the trade offs between stakeholders is to maximize economic benefits and not economic efficiency, and to enforce policy decisions and not preferred economic indicators. The rationale is to avoid benefits being enjoyed by a small group of operators but to spread the benefits across the entire community. There is a need to build capacity within fisheries authorities and industry/ private sector, raise level of confidence by equal participating in training programs and aware raising programs. These efforts need backing up by the appropriate legislation framework to gain political support;
- the central focus on effective and powerful fisheries institutions is the ability of managing fisheries as important assets for national economies, while at the same time performing necessary risk assessments of fisheries operations to address priority pitfalls and emerging challenges; and
- the changing priorities also affect movements in skilled staff and employing new fisheries graduates. The lack of job opportunities, financial and political support to create positions in fisheries institutions also exacerbates the problem. Sometimes fisheries staffs with the right mix of skills and experiences, while initially motivated, are forced to leave given the changes in the working environment. The central issue in fisheries institutions is not necessary about the lack of capacity and resistance to changes, however the lack of awareness of the changes across spectrum of fisheries stakeholders.

Effective implementation of fisheries development projects are hampered by challenges of change in government and priority policies, numerous changes in leadership within fisheries administrations and late start of project activities. In most cases, this leads to the re-evaluation of project activities as opposed to allowing the project to continue into the next phase. On the one hand, PICTs fisheries institutions require the necessary suite of skills that are urgently needed to re-direct priorities and operations of fisheries structures. The general pattern is clear in some countries with the drive to cut back outside influence. On the other hand, countries exercise a more cautious and gradual process through an informal process. The main drivers influencing such decisions vary potentially between countries, but in consideration of other priority areas and sectors that drive national economy of scale.

Markets & Marketing

To ensure sustainability and growth in the domestic fisheries operations, market opportunities and incentives play a significant role. This means that access to key

markets (including Japan, US, EU) and the need to meet strict certification standards to enter these markets is fundamentally important. Access to air freight and the issues associated with geographic isolation from shipping routes, airline routes and more generally the main markets. Issues associated with the monopoly control that most airlines have in each jurisdiction complicates matters further.

Others

Other factors such as infrastructure, geographical isolations and transportation also provide further challenges in the successful implementation of the EAFM process. The necessary on-shore infrastructure facilities are important in the development of domestic fisheries operations. Similarly, the isolation of some PICTs and the lack of reliable transportation further hamper domestic fisheries developments in linking to potential markets abroad.

Future Challenges

The biggest test for the success of an EAFM is whether the strategies and measures adopted will enable the living component of the ecosystem to continue sustainably as it did prior to fishing interventions. Furthermore, how will the physical impacts of the activities of resource exploitation on the environment, and the effects of those environmental impacts on resource productivity, be dealt with together under an integrated management regime.

Due to the obvious paucity in data and scientific information and knowledge required to formulate and implement strategies under an EAFM approach, an immediate challenge is to adopt a precautionary principle approach as an integral component of the ecosystem-based fishery management regime.

Specific challenges to the EAFM approach include and directly relate to:

- i) the integration of ecosystem aspects of management into a Fisheries Management Framework;
 - ii) the non-availability of fisheries data for non-target species;
 - iii) scientific surveys are expensive and time consuming;
 - iv) ongoing monitoring may be logistically impossible;
 - v) application of ecosystem-based models;
 - vi) capacity development needs of PICTs;
 - vii) traditional work on fishery assessment tends to limit its focus on the effects of fishing on target species and does not take explicit account of ecological and ecosystem considerations;
 - viii) implementation of the Ecosystem-based Fisheries Management Regime;
- and

- ix) ecosystem-based biodynamic models have not, as yet, proved themselves as management tools, but are paving the way to future implementation of ecosystem-based management of fisheries.⁸

Way Forward

The way forward is to effectively sell the EAFM report and its subsequent operational plan potentially to decision makers, formal and informal sectors and foreign investors as well as funding institutions. In considering the diverse issues covered and participation of stakeholders involved putting together these documents, in line with ecosystem principles, and national policies and priorities, there is good expectation of its success. Further, the documents are balanced having covered the issues linked to resources, users and the environment. As such, the ecosystem approach is neither a rhetoric concept nor disguise of guilt but it surely provides PICTs with an alternative to conventional and traditional fisheries management practices.

Fisheries reform is generally influenced by numerous factors such as culture barriers, political support or interferences, lack of skilled staff and funding support and attitudes of those directly and indirectly involved in the fishing industry. The fisheries administrations play direct role providing policy, management and development advice, as well, ensuring the sustainability of tuna stocks. It is therefore important that fisheries reforms strengthen these roles in order to provide the most cost-effective and efficient delivery of support services to the fishing industry that meets both conservation and economic goals.

There has been a regime shift in fisheries developments, physical infrastructure, fisheries organizations, management approaches, market access and opportunities in oceanic fisheries. This calls for the effective implementation of EAFM processes that account for these changes. The drive now amongst fisheries institutions and administrations is towards securing larger and more efficient fishing boats to harvest more fish. Great effort at all levels is now directed towards making informed decisions to regulate and manage tuna resources. The change in mindset of fisheries managers rests more in the management (and development) of fisheries resources. The current issues are far more complex than in the long past, which undoubtedly makes the work of fisheries managers a little more difficult and challenging. For instance, the need for stock assessments and methods used, and the need to include stakeholders in the decision making process (e.g. facilitators and mediators). The existence of challenges affecting Pacific Islands' tuna fisheries may prolong into the future if ecosystem processes are not considered and that succinct management actions applied.

⁸ Fletcher, 2006.

Bibliography

Fletcher, W.J. *A Guide to Implementing an Ecosystem Approach to Fisheries Management (EAFM) within the Western and Central Pacific Region*, Forum Fisheries Agency, Honiara, Solomon Islands, 2008.

Fletcher, W.J., Chesson, J., Sainsbury, K.J., Fisher, M. and Hundloe, T. 'A Flexible and Practical Framework for Reporting on Ecologically Sustainable Development for Wild Capture Fisheries' in *Fisheries Research* Vol. 71, 2005, pp. 175-183.

Marine Resources Assessment Group (MRAG), *Review of Ecosystem-Bycatch Issues for the Western and Central Pacific Region*, unpublished report prepared for the Preparatory Conference for the Western and Central Pacific Fisheries Commission (WCPFC), 2002.

Sauni, S. and Amos, M. *Application of the Ecosystem-Based Approach to Fisheries Management in Tuna Fisheries at the Western-Central Pacific Ocean (WCPO)*, unpublished report submitted to the 21st Pacific Science Congress, Okinawa, Japan, 2007a, 10pp.

Sauni, S. & Amos, M. *FFA Update on the Application of the Ecosystem-Based Approach to Managing Tuna Fisheries Amongst FFA Member Countries and Territories in the WCPO: Specific to Lessons from Stakeholder Consultations in Countries*, unpublished paper submitted to the 3rd regular session of the WCPFC Scientific Community, 2007b, 9pp.

Ferraris, R. *Review of Institutional Reform and Institutional Strengthening in Pacific Fisheries: Experiences and Lessons Learned*, Forum Fisheries Agency, Honiara, Solomon Islands, 2007, 77pp.

14. Legislative Guidelines for Sustainable Fisheries: Some Future Directions for the Development of Fisheries Legislation in the Pacific Islands

William Edeson

Introduction

The purpose of this chapter is to provide an overview of the work underway in the preparation of the Pacific Islands Forum Fisheries Agency (FFA) Legislative Guidelines for Sustainable Fisheries. It proposes to focus on those aspects which involve the implementation into national legislation of recent developments in international fisheries instruments. It contains extracts of a much longer study on the subject.

In particular, the following aspects are considered here: objectives and principles clauses, ecosystem considerations, precautionary approaches to fisheries management, records of fishing vessels, implementation of conservation and management measures of regional fisheries management organisations (RFMOs), authorisations to fish, scientific research, collection of data, port State measures, jurisdiction over nationals, evidentiary provisions, offences, penalties, cancellation, suspension and seizure, compliance and enforcement provisions, alternative mechanisms, “Long Arm” (Lacey Act)¹ Jurisdiction, and bail and bond issues.

It must be stressed at the outset that the objective is not to provide a comprehensive overview of all aspects to be covered in a fisheries law. Certain provisions that are often found in a fisheries law, such as those concerning driftnet fishing, and bilateral fisheries agreements, are not included in this document. Important though they are in their own right, they do not raise any novel aspects which a fisheries law needs to address, nor do they stem from recent developments in the international regime of fisheries. However, in a comprehensive fisheries law, such matters would obviously be included. Likewise, it is assumed that all countries have already provided for the declaration of their maritime areas (in particular, archipelagic waters, territorial sea and exclusive economic zone (EEZ)), which may of course be covered in a more generally applicable marine spaces law. Certain aspects such as fish processing and importation of fish are sometimes included in a basic fisheries law, other times not. These aspects are not considered here. Although important, these topics are not included in this chapter for the same

¹ United States, *Lacey Act*, 16 U.S.C. §§ 3371-3378; Pub. L. 97-79, as amended (2002).

reason that they do not raise novel questions concerning the modern law of the sea. Their importance should not be underestimated, of course, for such topics will have a bearing on how a country is dealing with obligations under the World Trade Organisation (WTO) regime.

Objectives and Principles

The starting point is the statement of objectives and principles in Article 5 of the United Nations Fish Stocks Agreement (UNFSA),² accompanied by the objective of long term sustainable use stated in Article 2 and the precautionary approach set out in Article 6. These objectives, along with those found in Agenda 21,³ the Code of Conduct for Responsible Fisheries,⁴ the World Summit on Sustainable Development (WSSD)⁵ the Johannesburg Plan of Action,⁶ and the various international plans of action and ministerial declarations adopted by Food and Agricultural Organisation (FAO), are widely accepted as indispensable to modern fisheries conservation and management. Further, they have been incorporated into the provisions of the Convention on the Conservation and Management of Highly Migratory Fish Stocks of the Western and Central Pacific Ocean (WCPF Convention).⁷

Thus, Article 5 of the WCPF Convention states:

In order to conserve and manage highly migratory fish stocks in the Convention Area in their entirety, the members of the Commission shall, in giving effect to their duty to cooperate in accordance with the 1982 Convention, the Agreement and this Convention:

- (a) adopt measures to ensure long-term sustainability of highly migratory fish stocks in the Convention Area and promote the objective of their optimum utilization;
- (b) ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special

² *Agreement for the Implementation of the Provision of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, concluded on 4 August 1995, in force 11 December 2001, 34 ILM 1542 (1995); 2167 UNTS 88.

³ United Nations Conference on Environment and Development (UNCED), Agenda 21, Rio de Janeiro, Brazil, 03-14 June 1992.

⁴ FAO, *Code of Conduct for Responsible Fisheries*, adopted at the 28th Session of the FAO Conference, Rome, Italy, 31 October 1995.

⁵ World Summit on Sustainable Development, Johannesburg, South Africa, August 26 - September 4, 2002.

⁶ Johannesburg Plan of Action, adopted at the conclusion of the World Summit on Sustainable Development (WSSD) in September 2002.

⁷ *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, Honolulu, USA, 5 September 2000.

requirements of developing States in the Convention Area, particularly small island developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

- (c) apply the precautionary approach in accordance with this Convention and all relevant internationally agreed standards and recommended practices and procedures;
- (d) assess the impacts of fishing, other human activities and environmental factors on target stocks, non-target species, and species belonging to the same ecosystem or dependent upon or associated with the target stocks;
- (e) adopt measures to minimize waste, discards, catch by lost or abandoned gear, pollution originating from fishing vessels, catch of non-target species, both fish and non-fish species, (hereinafter referred to as non-target species) and impacts on associated or dependent species, in particular endangered species and promote the development and use of selective, environmentally safe and cost-effective fishing gear and techniques;
- (f) protect biodiversity in the marine environment;
- (g) take measures to prevent or eliminate over-fishing and excess fishing capacity and to ensure that levels of fishing effort do not exceed those commensurate with the sustainable use of fishery resources;
- (h) take into account the interests of artisanal and subsistence fishers;
- (i) (i) collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research programmes; and
- (j) (j) implement and enforce conservation and management measures through effective monitoring, control and surveillance.⁸

This is backed up by the adoption of the precautionary approach in Article 6.

The trend today is, therefore, towards having objectives clauses in fisheries legislation, which should refer to these objectives one way or another. There are several different approaches that can be adopted. For example, the objectives could be spelled out. Another approach, of course, could be to refer to these objectives and principles by a process of incorporation, for example, by simply referring in the legislation to the statements as found in Article 5 of UNFSA or Article 5 of the WCPF Convention. An important underlying issue, however, is the extent to which such objectives can be used in judicial and administrative

⁸ Article 5, WCPF Convention.

proceedings to measure whether appropriate decisions have been made. In other words, are they justiciable?

An important issue to consider is the extent to which such provisions should be justiciable. In many instances in the South Pacific such objectives clauses involve clauses using “shall”; thus, in most instances, administrative action could be challenged in the courts on the basis of an alleged non-compliance with such objectives. Each country should be judged separately to determine whether that is appropriate, for example, that it could impose too great a strain on limited judicial resources. If that is the case, it may be necessary to insert weaker language, and add a clause to the effect that compliance with such provisions is not subject to judicial review. If it is considered necessary to do this, it would be important to ensure that the law in other ways provides for transparency and accountability.

Ecosystem Considerations

A modern fisheries law will need to provide the basis for the inclusion of ecosystem considerations in decision making, and this has been done already by referring to it in the objectives discussed above. It is no longer considered appropriate, for example, to make decisions solely on the basis of information concerning one stock or species of fish. Instead, it is necessary to consider effects of associated and dependent species, as well as considering the impact of the activity in question on the marine environment as a whole.

The ecosystem approach is reflected in the WSSD Plan of Implementation.⁹ Thus, in paragraph 30(d), it is stated: “Encourage the application by 2010 of the ecosystem approach, noting the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem and decision V/6 of the conference of the Parties to the Convention on Biological Diversity.” However, while the basic point is clear, it can often be difficult (and expensive) to obtain the information necessary to make an effective evaluation of the ecosystem considerations. In an important article by J Caddy and K Cochrane, the difficult task ahead for fisheries managers in embracing the ecosystem approach is put into context in their wide ranging review of fisheries management, when they state:

Even while fisheries management struggles to get to grips with single species issues, it is increasingly being called on to take a multispecies and ecosystem perspective. However, there are still few case studies with more than few years duration which illustrate how these concepts are to be applied, and the difficulties are already apparent to all.¹⁰

⁹ See Paragraph 30 (d), Chapter IV. Protecting and managing the natural resource base of economic and social development, WSSD Johannesburg Plan of Implementation.

¹⁰ J.F. Caddy and K. L. Cochrane, ‘A Review of Fisheries Management Past and Present and Some Future Perspectives for the Third Millennium’ in *Ocean and Coastal Management*, No. 44, 2001, at 653-666.

The following extracts from an FAO study¹¹ on the ecosystem approach are also helpful:

EAF [ecosystem approach to fisheries] is not well covered in binding international law at present, either explicitly as EAF *sensu stricto*, or implicitly as sustainable development principles, but is reflected mainly in voluntary instruments such as the Rio Declaration, Agenda 21, the Code of Conduct for Responsible Fisheries and the Reykjavik Declaration. As a result, few regional fisheries organizations and arrangements make explicit recognition of EAF in their instruments. Furthermore, EAF is not frequently an integral part of national fisheries policy and legislation. This leads to many deficiencies in current fishery management regimes, such as (i) weak cross-sectoral consultation and cooperation and (ii) the failure to consider, or a legal inability to act on external influences such as pollution and habitat deterioration. Such problems need to be addressed and corrected where required. Especially in the case of national policies and laws, EAF may require that existing legal instruments and the practices of other sectors that interact with or impact on fisheries need to be considered, and that adjustments to those instruments and practices pertaining to other sectors be made.

EAF is, therefore, likely to require more complex sets of rules or regulations that recognize the impacts of fisheries on other sectors and the impact of those sectors on fisheries. It may be desirable to regulate the major and more or less constant inter-sectoral interactions through the primary legislation. This could apply, for example, to laws controlling coastline development and coastal habitat protection, the establishment of permanent MPAs [Marine Protected Areas], and the creation of cross-sectoral institutions. However, many interactions between fisheries and other sectors will be dynamic, and in these cases, it may be desirable to strive for a more responsive and flexible mode of interaction than is usually possible through the primary legislation. In these cases, it would be preferable to rely instead on agreed rules. This is consistent with the advice in the FM [Fisheries Management] Guidelines, namely that routine management control measures needing frequent revision should be included in subordinate legislation, rather than in the primary legislation (4.3.1. vi).

The FM Guidelines states that the primary legislation should specify the “functions, powers and responsibilities of government or other institutions involved in fisheries management” (4.3.1 iv). It also states that the

¹¹ FAO, *The Ecosystem Approach to Fisheries: Issues Terminology, Institutional Foundations, Implementation and Outlook*, FAO Fisheries Technical Paper No. 443, Rome, 2003).

jurisdiction should include the geographical area, the interested parties and the institutions involved in fisheries management (4.3.1 v). In addition, EAF requires that (i) the geographical jurisdiction should, as far as practical, coincide with natural ecological boundaries and (ii) that the legislation should specify the appropriate level of consultation and cooperation between the specific fishery agency and those institutions dealing with other fisheries or with other interacting sectors.”

It will be apparent that giving full effect to EAF is an enormous task, and one that is beyond the reach of most governments. However, steps towards achieving it can be made, for example, by ensuring that EAF is included in the objectives and principles clauses discussed above. Also by providing the opportunity for cross sectoral assessments and interactions in the governance regime, the EAF approach can be given at least some prospects for application.

In the context of the FFA, important and novel work is underway in the form of stakeholder consultations and workshops to provide the initial basis for the adoption of ecosystem approaches to fisheries management.

Marine Protected Areas (MPAs)

While the ecosystem approach should permeate thinking about all aspects of decision making, one very practical step is to ensure that the fisheries legislation, or otherwise the legislation governing the marine environment, at least provides for setting up marine protected areas (MPAs). The legislation should also provide for the establishment of different types of MPAs according to the objective to be achieved. Thus, there should be scope for establishing the following: marine parks, marine reserves, and prohibited fishing areas.

By itself, the power to establish such areas will not, of course, ensure the application of an ecosystem approach. It will however, constitute an important tool in achieving that objective. In any event, the inclusion of the power in legislation to establish MPAs will form an important part of a range of controls available.

Precautionary Approaches to Fisheries Management

Closely linked to the need for an ecosystem approach is the need to adopt precautionary approaches to fisheries conservation, management and exploitation. This has already been referred to under the objectives above. However, it may be necessary to include in the law provisions requiring the decision maker to apply precautionary reference points in formulating fisheries management decisions.

Record of Fishing Vessels

Under both UNFSA and the FAO Compliance Agreement,¹² it is necessary to maintain a record of fishing vessels for vessels flying their flag and fishing on the high seas. This is in addition to any national registry or record that the country might have, and additional to the regional register maintained by FFA.

Similarly, the WCPFC imposes in Article 24 the following obligation with respect to the maintenance of a record:

4. Each member of the Commission shall, for the purposes of effective implementation of this Convention, maintain a record of fishing vessels entitled to fly its flag and authorized to be used for fishing in the Convention Area beyond its area of national jurisdiction, and shall ensure that all such fishing vessels are entered in that record.
5. Each member of the Commission shall provide annually to the Commission, in accordance with such procedures as may be agreed by the Commission, the information set out in Annex IV to this Convention with respect to each fishing vessel entered in the record required to be maintained under paragraph 4 and shall promptly notify the Commission of any modifications to such information.
6. Each member of the Commission shall also promptly inform the Commission of:
 - (a) any additions to the record;
 - (b) any deletions from the record by reason of:
 - (i) the voluntary relinquishment or non-renewal of the fishing authorization by the fishing vessel owner or operator;
 - (ii) the withdrawal of the fishing authorization issued in respect of the fishing vessel under paragraph 2;
 - (iii) the fact that the fishing vessel concerned is no longer entitled to fly its flag;
 - (iv) the scrapping, decommissioning or loss of the fishing vessel concerned; and
 - (v) any other reason, specifying which of the reasons listed above is applicable.¹³

The following provision is intended to give effect to the UNFSA and the FAO Compliance Agreement, as well as the WCPFC:

- (1) The Managing Director/Minister shall maintain a record of fishing vessels of [country] in respect of which high seas fishing permits have

¹² FAO, *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*, hereinafter referred to as FAO Compliance Agreement, adopted at the 27th Session of the FAO Conference, 24 November 1993.

¹³ Article 24, WCPF Convention.

been issued, including all information required to be submitted under Annex IV of the WCPFC.

- (2) The Managing Director/Minister shall:
- (a) make available to FAO and to WCPFC information contained in the record maintained under sub-section (1);
 - (b) promptly notify FAO and WCPFC of changes in such information in respect of high seas fishing vessels;
 - (c) promptly notify FAO and WCPFC of any additions to or deletions from the record, and the reasons for any deletion;
 - (d) convey to FAO and WCPFC information relating to any high seas fishing permit granted under section 6(4) of this Act, including the identity of the vessel and its owner, charterer or operator, and factors relevant to the Minister's decision to issue the permit;
 - (e) report promptly to FAO and WCPFC all relevant information in his possession regarding any activities of fishing vessels of [country] on the high seas that undermine the effectiveness of international conservation and management measures, including the identity of vessels and any sanctions imposed;
 - (f) provide FAO and WCPFC with a summary of evidence in his possession regarding the activities of foreign vessels that undermine the effectiveness of international conservation and management measures; and
 - (g) maintain a record of international conservation and management measures and subregional or regional fisheries management organisations which are recognised by [country].
- (3) The Managing Director/Minister may make available on request the information maintained under sub-section (1) to any directly interested foreign State which is a party to the Compliance Agreement, the Fish Stocks Agreement, the WCPFC and to any other subregional or regional fisheries management organisation.
- (4) The Managing Director/Minister may lay an information before the Court in respect of alleged offences committed under this Act.

However, clause (3) above may be unnecessary depending on the specific solution adopted for giving effect to conservation and management measures of RFMOs.

There are two other aspects concerning a record, or register. First, a country might wish in any event to have a much more widely based record or register than merely for high seas fishing. It might, for example, wish to register all fishing vessels above

a certain size. Second, the role of the FFA regional register needs to be covered in national legislation.

Implementation of Conservation and Management Measures of Regional Fisheries Bodies

Under the UNFSA in general, and specifically under the WCPF Convention, it will be necessary for parties to RFMOs to give effect in their national laws to international conservation and management measures. Article 23.1 of the WCPF Convention states:

Each member of the Commission shall promptly implement the provisions of this Convention and any conservation, management and other measures or matters which may be agreed pursuant to this Convention from time to time and shall cooperate in furthering the objective of this Convention.¹⁴

The means by which a treaty is given effect in national law can vary from one country to another (and may even be subject to constitutional requirements), hence what follows might not work for all countries. Further, several environmental treaties either overlap with, or will have the potential to do so, with fisheries, and this needs to be monitored.

One approach would be to have such measures laid before the Parliament for a number of days, and if not objected to, they would then acquire legal effect. Such an approach requires action by the country in question to give effect to such measures. A more radical approach would be to make conservation and management measures of an RFMO such as the WCPFC immediately applicable in national law, unless specifically disallowed. Provisions dealing with this need to be drafted with special care if the violation of one of these measures constitute an offence. A possible draft provision, which does not go quite so far as to give immediate application, is set out here:

Giving effect to fisheries and international agreements

- (1) The Minister shall publish in the Gazette the texts of all conservation and management measures adopted under the [WCPF Convention] and any other such measures adopted by a regional fisheries management organization to which is a party.
- (2) The Minister may, for the purpose of giving effect to [WCPF Convention] as amended from time to time make such regulations or

¹⁴ Article 23.1, WCPF Convention.

give notice in the Gazette or attach such conditions to a licence as the Minister may consider necessary or expedient for this purpose.

- (3) The Minister may, for the purpose of giving effect to any fisheries agreement entered into under section ... or any international agreement or arrangement to which is a party, make such regulations or give notice in the Gazette or attach such conditions to a licence as the Minister may consider necessary or expedient for this purpose.
- (4) For the purposes of this section, “conservation and management measures” means measures to conserve and manage one or more species of living marine resources that are adopted and applied by global, regional or subregional fisheries organisations, including in particular those adopted by WCPFC, consistent with the relevant rules of international law as reflected in the United Nations Convention on the Law of the Sea of 10 December 1982, and [the 1995 UN Fish Stocks Agreement].¹⁵

The penalty to be imposed needs also to be considered. The provision quoted above in respect of the fisheries management plans could be adapted as follows:

The Minister may by regulation prescribe offences in respect of non compliance with conservation and management measures and penalties for such offences, not exceeding a fine of [\$250,000] and, where the offence is a continuing one, a further fine not exceeding [\$5000] for every day that the offence has continued.

Consistency in penalty levels across WCPFC members would be desirable.

Authorisations to Fish

The type of authorisation adopted by a particular country will almost certainly raise important policy issues that go well beyond legal drafting considerations. No attempt here is made to promote one system over another.

1. Licensing (not including foreign fishing)

It will be necessary to distinguish broadly between those countries which need or want a licensing regime, and those which want additionally a rights based regime. In a straightforward licensing regime, the duration of a license has become a contentious issue for certain sectors. Thus, one year for recreational fishing by individuals might be suitable; however, where there are significant investments involved, usually longer periods are required. It will be necessary to look at the laws in order to assess how effective they are in terms of granting security to the participants.

¹⁵ This definition may be unnecessary if the term has already been defined in the Act as a whole.

It will also be necessary to consider which categories are needed for each country: for example, local, locally based, foreign. For some, the middle category might be dispensed with. For others, the category may have become too deeply entrenched to be easily dispensed with.

The arrangements for subsistence fishers and the role of customary fishing rights will also need to be considered in many countries. It will be recalled that there may be a need to refer specifically to such fishing in the objectives clauses considered above.

2. Rights Based Fisheries

If a system of rights based transferable quota is introduced, then a more elaborate authorization regime is required. The legal provisions governing the setting up of a rights based regime can be very complex. Indeed, the laws of some countries (eg New Zealand (NZ)) are highly involved. They need to be, as in effect, property rights are being established, and issues such as security of title to the right need to be carefully spelled out. Another consideration is that such systems have tended to involve significant burdens for the administration.

Ideally the law dealing with rights based fishing should provide for at least the following:

- the method of applying for a right of access or quota share;
- the identification of any criteria governing those eligible to apply (including, for example, the important question whether foreigners are eligible to apply and compete on equal terms with local applicants);
- the duration of any right;
- the method of dealing with fluctuations in the quota from one year or fishing season to another;
- the character of the right granted (is it to be inheritable, leasable, saleable, divisible or inheritable);
- the amount of quota any person or company may hold at any one time;
- the calculation of the quota (usually as part of the total allowable catch (TAC) or the TAC for a particular species); and
- the circumstances in which a right may lapse, be reduced, be suspended, or cancelled.

More elaborate versions can be found in the NZ and Australian provisions. However, these both assume a considerable administrative backup, as well as the need for an appeal process. It may not therefore be appropriate in all instances for FFA members. Much will depend also on how many participants will be eligible for a rights based system.

3. Authorisation of Fishing Vessels on the High Seas

Both the UNFSA and the Compliance Agreement have imposed certain obligations on States which have vessels registered with them, in particular to control their activities on the high seas. This requires the establishment of a licensing or authorization system for such vessels to cover their activities while fishing on the high seas. It also applies to placing controls on their activities while fishing in the EEZs of other States. See Article 18.3 (b) (iv) UNFSA. This is linked to the need for the State to provide for a boarding and inspection scheme on the high seas both in respect of its vessels as well as its power to board and inspect vessels pursuant to measures adopted by RFMOs.

The licensing regime will need to provide both for obtaining information on the fishing vessel and the proposed fishing activity at the application stage, and for the setting of conditions on high seas fishing.

There are additional specific obligations arising under the WCPFC. In particular Article 24 of WCPF Convention states:

Flag State Duties

1. Each member of the Commission shall take such measures as may be necessary to ensure that:
 - (a) fishing vessels flying its flag comply with the provisions of this Convention and the conservation and management measures adopted pursuant hereto and that such vessels do not engage in any activity which undermine the effectiveness of such measures; and
 - (b) fishing vessels flying its flag do not conduct unauthorized fishing within areas under the national jurisdiction of any Contracting Party.
2. No member of the Commission shall allow any fishing vessel entitled to fly its flag to be used for fishing for highly migratory fish stocks in the Convention Area beyond areas of national jurisdiction unless it has been authorized to do so by the appropriate authority or authorities of that member. A member of the Commission shall authorize the use of vessels flying its flag for fishing in the Convention Area beyond areas of national jurisdiction only where it is able to exercise effectively its responsibilities in respect of such vessels under the 1982 Convention, the Agreement and this Convention.
3. It shall be a condition of every authorization issued by a member of the Commission that the fishing vessel in respect of which the authorization is issued:

- (a) conducts fishing within areas under the national jurisdiction of other States only where the fishing vessel holds any licence, permit or authorization that may be required by such other State; and
- (b) is operated on the high seas in the Convention Area in accordance with the requirements of Annex III, the requirements of which shall also be established as a general obligation of all vessels operating pursuant to this Convention.¹⁶

Thus, in addition to the extensive controls already provided for, it is necessary to ensure that the requirements of Annex III of WCPF Convention (Terms and Conditions for Fishing) are complied with by members of the Commission. Therefore, it is important to add to the fisheries laws a provision along the following lines:

In addition to any conditions governing the authorisation to fish in the area covered by the WCPFC, as defined in that Convention, it shall be a condition of every such authorization that the requirements of Annex III of the WCPFC are complied with.

A penalty for failure to do so should be added.

Scientific Research

National legislation should provide for the regulation of marine scientific research in the EEZ, the territorial sea, the archipelagic waters, and internal waters. However, it is only in the EEZ that a coastal State has an obligation to permit marine scientific research in certain circumstances. A related question however, is whether it is better to have a general provision dealing with all marine scientific research or whether it is better to have a provision in the fisheries legislation that deals with fisheries research activities.

Bio prospecting is one aspect of scientific research which is becoming a topic of increasing concern, and it would be important to ensure that it is specifically covered in the law itself and referred to in the regulation making power. As an alternative, it could be covered in the environment law, or in the laws governing biodiversity.

The law should, therefore, set out clear procedures to be followed for those who wish to undertake marine scientific research, including bio prospecting and to allow the government to impose certain controls on such research. These controls might be imposed directly as conditions governing the permission to undertake such research, or they could be imposed more generally through regulations.

¹⁶ Article 24, WCPF Convention.

Collection of Data

The law should provide for the collection of fisheries data, which is now recognised as being of “fundamental” importance in Annex I of UNFSA. This broad obligation also finds reflection in WCPFC: thus, one of the principles and measures for conservation and management is stated (in Article 5) to be:

- (i) collect and share, in a timely manner, complete and accurate data concerning fishing activities on, *inter alia*, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research programmes;¹⁷

This mirrors the provisions of UNFSA Article 5 (j).

Likewise, under the precautionary approach (Article 6 WCPF Convention) it is stated:

- (a) develop data collection and research programmes to assess the impact of fishing on non-target and associated or dependent species and their environment, and adopt plans where necessary to ensure the conservation of such species and to protect habitats of special concern.¹⁸

The functions of the Commission also refer (in Article 10) to:

- (d) adopt standards for collection, verification and for the timely exchange and reporting of data on fisheries for highly migratory fish stocks in the Convention Area in accordance with Annex I of the Agreement, which shall form an integral part of this Convention;
- (e) compile and disseminate accurate and complete statistical data to ensure that the best scientific information is available, while maintaining confidentiality, where appropriate;
- (j) obtain and evaluate economic and other fisheries-related data and information relevant to the work of the Commission;¹⁹

Data will also be crucial to the work of the Scientific Committee established under Article 12.

Further, members of the Commission have, *inter alia*, the following obligations under Article 23:

2. Each member of the Commission shall:

- (a) provide annually to the Commission statistical, biological and other data and information in accordance with Annex I of the Agreement and, in addition, such data and information as the Commission may require;

¹⁷ Article 5, WCPF Convention.

¹⁸ Article 6, WCPF Convention.

¹⁹ Article 10, WCPF Convention.

- (b) provide to the Commission in the manner and at such intervals as may be required by the Commission, information concerning its fishing activities in the Convention Area, including fishing areas and fishing vessels in order to facilitate the compilation of reliable catch and effort statistics;²⁰

It will be apparent that data will need to be collected for a number of reasons, and not only to meet obligations under international instruments. The following extract will indicate how varied these reasons could be.

Both the 1982 UN Convention and the UN Fish Stocks Agreement make it clear that the purpose of collecting fisheries data is to underpin decisions with respect to conservation and management of the resources, in the case of the 1995 UN Fish Stocks Agreement, with respect to straddling fish stocks and highly migratory fish stocks. That said, it is unlikely that these statistics, having been collected, will be used only for that purpose. Thus, the data might be used, for example, directly or indirectly, to assist in identifying the origin of a catch for the purposes of trade rules concerning the origin of a particular item in trade (subject to any applicable confidentiality restrictions). However, it is important to keep in mind the basic purpose of the data collected, and that same information might only partly serve another purpose in another context. For example, in the area of fish processing, sales, and trade in the product, the data will have to be adapted to meet that purpose.

Fisheries data will also play an important role in determining the financial contributions to certain management organizations, as for example is the case with the Indian Ocean Tuna Commission. Thus, Article XIII of the Agreement for the Establishment of the Indian Ocean Tuna Commission, which deals with finances, states, that a scheme for contributions shall be adopted by the Commission, which shall involve an equal basic fee and a variable fee, which shall be based "inter alia on the total catch and landing of species covered by the Agreement in the area," and the per capita income of each Member. However, it will be apparent that simply answering this question by reference to the flag of the vessel making the catch will not be sufficient information.

Fisheries data will also of course be useful in negotiations concerning access to exclusive economic zones where one of the issues is catch history. Indeed, Article 62(3) of the 1982 UN Convention requires the coastal State to take into account a number of factors, including the need to "minimise

²⁰ Article 23, WCPF Convention.

economic dislocation in States whose nationals have habitually fished in the [EEZ]".

Another area where the data might also play a role is in determining the parties to a negotiation on the management of a particular straddling fish stock or highly migratory fish stock. Here, the information would need to be looked at more closely in order to determine if, in fact, the stock in question was actually found in the EEZ of a particular coastal State. It would not be enough merely to work from data made by the flag State (unless of course, it was provided in enough detail to permit such a more detailed analysis). Related to this is the question of using fisheries data to determine the "catch history" of a particular country in a particular region (both within and beyond the EEZ), which will often be a major issue in negotiations.

Another instance where the catch data can be used is to cross check the accuracy of the statistics provided in respect of landings.

There are no doubt numerous other instances where such data can (or does) serve another purpose.²¹

With the introduction of trade measures as one of the weapons used in combating illegal, unreported and unregulated (IUU) fishing, fisheries data will have a part to play there too.

From a legal perspective, the collection of such data can be secured most often in one of two ways: firstly, by the power of the fisheries administration to impose conditions on fishing activity to collect certain data, including for example, the form and content of fishing log books, or secondly, by enacting regulations applicable in general to the collection of data. An important consideration is that in some countries, especially for small scale fishing activities or subsistence fishing, it may be impractical to make the collection of data unduly onerous in relation to the activity itself, and, depending on particular circumstances, it is useful to ensure that there is also a power to exempt or vary this requirement.

It will also be useful to state specifically that there is authority to transmit data to WCPFC and other RFMOs in accordance with the obligations incurred under such agreements. Thus, a clause could be added to the provisions above (or similar provisions in other laws) as follows:

²¹ Edeson, W. *Legal Aspects of the Collection of Fisheries Data*, FAO Fisheries Circular No. 953, FAO, Rome, 2000.

The [Minister/Managing Director] may transmit any data which is necessary to be transmitted to WCPFC and to any other regional or subregional fisheries management organization in order to fulfil any obligations of [State] under the treaties establishing such bodies.

There should also be a penalty imposed for failure to collect data as required. It should be noted that failure to provide data constitutes a “serious violation” under Article 21.8 of UNFSA (as well as under WCPFC, which in effect adopts the UNFSA definition). It would be useful to check if the level of penalty imposed is adequately high.

Port State Measures

Both the FAO Compliance Agreement and UNFSA authorize the taking of certain measures in ports in order to promote the effectiveness of applicable conservation and management measures, including the prohibition of landing and transshipment. See in particular, Article 23 UNFSA.²² In the case of the 1995 UNFSA, it speaks of the right and the “duty” to take measures. These will need to be put into effect in national legislation to give inspectors the necessary powers to take action. The WCPFC also mirrors the provisions of UNFSA. In particular, Article 27 of WCPF Convention states:

3. Members of the Commission may adopt regulations empowering the relevant national authorities to prohibit landings and transshipments where it has been established that the catch has been taken in a manner which undermines the effectiveness of conservation and management measures adopted by the Commission.²³

The FAO model scheme on Port Measures to combat IUU Fishing²⁴ adopted by an FAO Technical Consultation in 2004 sets out elements that could be adopted by a regional fisheries body. It therefore gives a good indication of the kinds of issues likely to be adopted by a regional body such as WCPFC, even if it is not followed to the letter. Many of its elements need to be reflected in national legislation in order to give the port State an effective basis for taking port State measures. Because this is a new development in the international regime of fisheries, it is unlikely that many countries will have comprehensive legislation to deal with this.

There is another reason for addressing port measures with some care. There is evolving a perception that the older approach, which focuses on the power of a State to exclude foreign fishing vessels from its ports, needs to be reconsidered in

²² Article 23, UNFSA.

²³ Article 27, WCPF Convention.

²⁴ FAO, *Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing*, Rome, 2006.

the light of the WTO framework, and in particular, how it interacts with other global regimes such as the law of the sea, and international environmental law, especially multilateral environmental agreements. How much the situation has changed is still not clear, and discussions are taking place at the global level to work out a solution to these issues. Very simply, this is not a static area of international law.

The model scheme referred to has detailed provisions on port measures which include:

- the designation of ports into which foreign fishing vessels may enter, and have the capacity to conduct inspections;
- requiring those vessels to provide information, with due regard to confidentiality requirements, of information about the vessel, authorisations, its VMS, and quantities of catch;
- prohibition on landing, transshipment or processing by vessels whose flag states are not parties to, or not cooperating non-contracting parties with, regional fisheries management organisations, unless the vessel can establish that the catch was taken consistent with applicable conservation and management measures;
- refusing to allow the vessel to use its ports for refuelling etc where there are clear grounds for believing that the vessel has engaged in or supported IUU fishing; and
- obtain certain specified information set out in annex to the model scheme.²⁵

The model also has detailed information on inspections, the actions which may be taken, and requirements for reporting the results of inspections to the flag State, other relevant States, and relevant RFMOs. Further, there are some important savings clauses, for example, that vessels shall nonetheless be able to enter ports for reasons of *force majeure*, that nothing in the model scheme will affect sovereignty over ports in accordance with international law, that all measures are to be taken in accordance with international law, and that all measures are to be implemented in a fair, transparent and non discriminatory manner.

The model scheme has now been taken a few stages further as FAO is developing a global treaty on port State measures to prevent, deter, and eliminate IUU fishing. This has been considered at an expert consultation held in Washington in September 2007. However, it is useful to note that the text as it stands contains the following provisions.

²⁵ *Ibid.*

In the first place the preamble draws on the International Plan of Action for Illegal, Unreported and Unregulated Fishing (IPOA-IUU),²⁶ the Code of Conduct for Responsible Fisheries, and is intended to be consistent with the 1982 UN Convention, the FAO Compliance Agreement and the 1995 UNFSA.

The objective of the agreement is stated to be:

to ensure the long-term conservation and sustainable use of living marine resources through strengthened and harmonized port State measures to prevent, deter and eliminate illegal, unreported and unregulated fishing.²⁷

Likewise, the application of the agreement is stated to be:

1. Except as provided in paragraph 2 of this Article, each Party shall, in its capacity as a port State, apply this Agreement in respect of vessels that are not flying its flag that are seeking access to its port(s) or are in one of its ports.
2. Each Party shall take all necessary measures to ensure effective jurisdiction and control over the fishing and fishing related activities of vessels flying its flag. To the greatest extent possible, such measures shall include *mutatis mutandis* the port State measures set forth in this Agreement in respect of such vessels.
3. This Agreement shall be applied and implemented in a fair, transparent and non-discriminatory manner, consistent with international law.²⁸

In addition to definitions of specific terms, it has general provisions (set out in Part 1) concerning the relationship with international law and other international instruments, integration and coordination, cooperation and exchange of information. Part 2 concerns the requirements prior to entry into port, and it has specific provisions concerning designation of ports, and advance notification. Part 3 concerns the use of ports. It has provisions concerning denial of the use of a port, in certain circumstances, and withdrawal of the denial of the use of a port. Part 4 concerns inspections and follow up actions. It has provisions on levels and priorities for inspection, conduct of inspections, results of inspections, transmittal of results by a party, electronic exchange of information, training of inspectors, port State actions following inspection, appeals concerning actions by the port State compensation, and *force majeure* or distress. Part 5 deals with the role of flag States. Part 6 deals with the requirements of developing States. Part 7 deals

²⁶ FAO, *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing*, adopted at the Twenty-fourth Session of COFI, Rome, Italy, 2 March 2001. Hereinafter referred to as IPOA-IUU.

²⁷ *Ibid.*

²⁸ *Ibid.*

with dispute settlement, Part 8 with non-Parties to the Agreement, Part 9 with monitoring and review, and Part 10 with final provisions. The agreement has some detailed annexes. Annex A concerns information to be provided in advance by vessels, Annex B with port State inspection Procedures by vessels, Annex C concerns the results of port State inspections, Annex D the information system on port State inspections, Annex E with the training of inspectors. This draft agreement is still subject to further negotiation.

A draft port measures scheme for possible inclusion in national legislation is set out here for preliminary consideration. However, this must still be considered as tentative in view of negotiations at the global level.

Draft Port Measures Regime

- (1) For the purpose of promoting the effectiveness of conservation and management measures adopted by sub regional, regional or global fisheries management organisations or arrangements, including those adopted pursuant to the WCPF Convention, the [Minister/Secretary] may make regulations concerning the following matters:
 - (a) the designation and publicisation of ports to which foreign fishing vessels may be permitted access;
 - (b) the designation of port inspectors;
 - (c) requiring, prior to allowing port access to a foreign fishing vessel, that such vessel provides such notice as may be prescribed prior to entering its port or its EEZ for the purpose of port access, including vessel identification, any authorization to fish, information on its fishing trip and vessel monitoring systems, quantities of fish on board and such other documentation as may be prescribed;
 - (d) regulating or prohibiting the landing, transhipment or processing of fish, or refuelling or resupplying the vessel, including the prohibition of port access of a vessel which has been identified as having been engaged in or supporting fishing activities in contravention with sub regional or regional conservation measures, or in contravention of the laws of a particular country, or where there are reasonable grounds for presuming that a vessel has been engaged in such activity;
 - (e) establishing the procedures, the contents of and the results to be obtained from an inspection regime, including the adoption of port measures adopted by a global, regional or sub regional fisheries organisation;
 - (f) prescribing the powers of inspectors, including the power to inspect any area of the fishing vessel, the catch (whether processed or not), any fishing gear, equipment or other gear and document which the

- inspector deems necessary to verify compliance with relevant conservation and management measures;
- (g) requiring the provision of such assistance and information as may be needed in order to undertake inspections; and
 - (h) authorising the cooperation and exchange of information with other States and regional or sub regional fisheries organisations.
2. The [Minister/Secretary] may prohibit from entering a port of country X a vessel which has been sighted as being engaged in or supporting fishing in contravention of the conservation and management measures of a regional or sub regional fisheries organization and whose flag State is not a member of nor is it a cooperating non contracting Party to that sub regional or regional fisheries organisation, unless it can be established that the catch on board has been taken in a manner consistent with the relevant conservation and management measures. Such a prohibition may apply to an individual vessel or to a category of vessels.²⁹
3. Such measures shall not discriminate in form or in fact against the fishing vessel of any State.
4. References to ports in this part include offshore terminals and other installations for landing, transshipping, refuelling or resupplying vessels.

Penalties for breach of port State measures should be set reasonably high.

One aspect of port State provisions is that they need to mesh in with a wide range of other laws. For example, in many countries, ports are the subject of quite precise definitions as there are different powers to be exercised in ports. This is particularly the case with customs and excise laws, and the issue of “in bond” shipments. There is also a potential problem should any FFA member decide to introduce a freeport, as Mauritius has done. This will be important if, for example, fish are transhipped through freeports. Thus, the introduction of a port States

²⁹ This provision is aimed at giving effect to the following paragraph of the IPOA-IUU: IUU text 63.

States should consider developing within relevant regional fisheries management organisations port State measures building on the presumption that fishing vessels entitled to fly the flag of States not parties to a regional fisheries management organization and which have not agreed to cooperate with that regional fisheries management organisation, which are identified as being engaged in fishing activities in the area of that particular organisation, may be engaging in IUU fishing. Such port State measures may prohibit landings and transshipment of catch unless the identified vessel can establish that the catch was taken in a manner consistent with those conservation and management measures. The identification of the vessels by the regional fisheries management organisation should be made through agreed procedures in a fair, transparent and non-discriminatory manner.

regime along the lines proposed above will require a review of several related laws, such as customs laws and laws governing the operation of ports.

Jurisdiction over Nationals

Some States are now including in their basic fisheries laws provisions which enable them to exercise control over their nationals. As the point is put in the IPOA-IUU:

18. In the light of relevant provisions of the 1982 UN Convention, and without prejudice to the primary responsibility of the flag State on the high seas, each State should, to the greatest extent possible, take measures or cooperate to ensure that nationals subject to their jurisdiction do not support or engage in IUU fishing. All States should cooperate to identify those nationals who are the operators or beneficial owners of vessels involved in IUU fishing.³⁰

A strong instance of the exercise of this kind of jurisdiction is found in section 133E of the 1996 *New Zealand Fisheries Act* giving effect to the 1995 Agreement:

No New Zealand national may use a vessel that is not registered under the Ship Registration Act 1992, or a tender of that vessel, to take (by any method) on the high seas any fish, aquatic life, or seaweed for sale, or to transport any fish, aquatic life, or seaweed taken on the high seas, except in accordance with an authorization issued by a state specified in subsection (2).³¹

The 1990 *Cook Islands Marine Resources Act* has the following provision:

22. Use of Vessels of other Flags by Cook Islanders on the High Seas – (1)
No person, being a Cook Islander, or a body corporate established under the laws of Cook Islands may use a vessel registered in another country for fishing or related activities on the high seas except in accordance with a qualifying authorisation issued by the flag State.
- (2) A qualifying authorisation may be issued -
 - (a) by a State that is a party to the Fish Stocks Agreement; or
 - (b) by a State that is a party to the FAO Compliance Agreement; or
 - (c) by a State that is a party to, or has accepted the obligations of, a global, regional, or sub-regional fisheries organisation or arrangement to which the authorisation relates; or
 - (d) by a State that -
 - (i) is a signatory to the Fish Stocks Agreement; and

³⁰ Paragraph 18, IPOA-IUU.

³¹ Section 133E, *New Zealand Fisheries Act 1996* No. 88 (as at 01 October 2008), Public Act.

- (ii) has legislative and administrative mechanisms to control its vessels on the high seas in accordance with that agreement.
- (3) For the purpose of subsection (1) any notice given by the Minister in the Gazette, specifying any State or category of States as States that may issue a qualifying authorization shall be conclusive of its contents.
- (4) Any person who contravenes subsection (1) commits an offence, and shall be liable on conviction to a fine not less than \$50,000 and not exceeding \$100,000.³²

The authorisations referred to may be issued by a party to either the 1995 UN Fish Stocks Agreement or the 1993 FAO Compliance Agreement, or by a State that is party to or has accepted the obligations of a global regional or subregional organization or arrangement to which the authorisation relates. However, it would be useful to include a specific reference to WCPFC in such a provision.

Role of the Attorney General

One important safeguard is written into this Act, namely that the consent of the Attorney General is required before proceedings can be instituted under these provisions. This is a device that is intended to ensure that the primacy of the jurisdiction of the flag State is protected, as well as providing a means of avoiding the risk of double jeopardy, jurisdictional conflicts, and other legal and policy difficulties that might arise. Although especially important in the context of proceedings against nationals, this safeguard is of more general value in fisheries laws where actions against foreign fishing interests are concerned.

Evidentiary Provisions

In countries which have inherited the Anglo Saxon or common law system, there are important issues of proof which need to be addressed. Further, in many countries of the region there are fundamental human rights provisions which place restrictions on the reversal of the burden of proof.

In order to facilitate the task of proving a case before the court, many laws have special provisions which make the proving of certain facts easier. One method is to allow the government to put before the court certain certificates which are *prima facie* evidence of the matters before the court. These usually relate to whether a fishing vessel was a local or a foreign fishing vessel, whether a person or vessel had been issued with an authorisation, whether certain areas had been

³² Cook Islands Marine Resources Amendment Act 1990, 13 September 1990.

closed off or restricted for fishing purposes, whether a chart showed certain marine boundaries, and whether a report had been issued in respect of a person or vessel. Certain limited presumptions can also be used, for example, that the presence on board a vessel of explosives or poisons shall be presumed to be there unlawfully unless the contrary is proved. These solutions are usually not seen as reversing the burden of proof in a manner likely to contravene the basic proscription against reversal of proof.

There is also the need to ensure that evidence by foreign enforcement officials can be relied on in the local courts. The following example is taken from the Marshall Islands, and it could be adapted to cover the WCPFC context:

- (3) Standing in the High Court of the Republic of the Marshall Islands shall be afforded to any authorized officer or authorized observer designated under a fisheries management agreement entered into pursuant to subsection (1)(b) or (c) of this section to bring action against any person or fishing vessel for any act or offense that is actionable under the law of the Republic of the Marshall Islands is a violation of an access agreement or fisheries management agreement pursuant to which the officer or observer was authorized which has occurred in the Fishery Waters or the high seas, notwithstanding the nationality of the authorized officer or authorized observer.³³

Photographic, electronic and digital evidence is also an important issue. In some countries, the basic laws of evidence do not permit the use of so called hearsay evidence, of which such evidence is a part. With increased reliance on vessel monitoring systems in the fisheries sector, it is important to ensure that such evidence can be relied on in court. It should be noted here that the IPOA-IUU states in paragraph 17 “National legislation should address, *inter alia*, evidentiary standards and admissibility including, as appropriate, the use of electronic evidence and new technologies.”³⁴

Offences

Virtually all of the recently drafted fisheries laws will already have comprehensive provisions setting out offences, and imposing heavy penalties, and it is therefore unnecessary to address that subject fully here. It will however; be necessary to check whether the laws provide for offences on the high seas, and that adequate penalties are set in order to be an effective deterrent.

³³ See §408. Implementation of multilateral access agreements, fisheries management agreements, *Fishing Access and Licensing Act* [51 MIRC Ch 4], Marshall Islands Revised Code 2004.

³⁴ Paragraph 17, IPOA-IUU.

Definition of Serious Violations

One aspect of the subject of offences does need attention, however. Article 21.8 UNFSA (Subregional and regional cooperation in enforcement) which provides:

8. Where, following boarding and inspection, there are clear grounds for believing that a vessel has committed a serious violation, and the flag State has either failed to respond or failed to take action as required under paragraphs 6 or 7, the inspectors may remain on board and secure evidence and may require the master to assist in further investigation including, where appropriate, by bringing the vessel without delay to the nearest appropriate port, or to such other port as may be specified in procedures established in accordance with paragraph 2. The inspecting State shall immediately inform the flag State of the name of the port to which the vessel is to proceed. The inspecting State and the flag State and, as appropriate, the port State shall take all necessary steps to ensure the well-being of the crew regardless of their nationality.

11. For the purposes of this article, a serious violation means:
 - (a) fishing without a valid licence, authorization or permit issued by the flag State in accordance with article 18, paragraph 3 (a);
 - (b) failing to maintain accurate records of catch and catch-related data, as required by the relevant subregional or regional fisheries management organization or arrangement, or serious misreporting of catch, contrary to the catch reporting requirements of such organization or arrangement;
 - (c) fishing in a closed area, fishing during a closed season or fishing without, or after attainment of, a quota established by the relevant subregional or regional fisheries management organization or arrangement;
 - (d) directed fishing for a stock which is subject to a moratorium or for which fishing is prohibited;
 - (e) using prohibited fishing gear;
 - (f) falsifying or concealing the markings, identity or registration of a fishing vessel;
 - (g) concealing, tampering with or disposing of evidence relating to an investigation;
 - (h) multiple violations which together constitute a serious disregard of conservation and management measures; or
 - (i) such other violations as may be specified in procedures established by the relevant subregional or regional fisheries management organization or arrangement.³⁵

³⁵ Article 21.8, UNFSA.

Article 25.4 of WCPF Convention has also essentially adopted the definition of serious violation found in Article 21.8 UNFSA.

The New Zealand and Australian laws also provide contrasting approaches to defining the term “serious violation” as that term is used in Article 21 of the 1995 UNFSA. The New Zealand Amendment of 1999 states simply that “‘Serious violation’ has the meaning given to it by Article 21.11 of the Fish Stocks Agreement.”³⁶ The Australian law, on the other hand, transforms the definition of serious violation into its own version of what the term means.

On the other hand, the *Cook Islands Marine Resources Act 2005* defines “serious violation”:

“Serious violation” means -

- (a) fishing without a valid licence, authorisation, fishing right or permit as required under this Act;
- (b) failing to maintain accurate records of catch and catch-related data, as required by this Act or a licence issued pursuant to this Act, or serious misreporting of catch contrary to this Act or a licence issued pursuant to this Act;
- (c) fishing in a closed area, fishing during a closed season or fishing without, or after attainment of, a quota established in the fishery waters or by an applicable subregional or regional fisheries management organization or arrangement;
- (d) directed fishing for a stock which is subject to a moratorium or for which fishing is prohibited;
- (e) using prohibited fishing gear;
- (f) falsifying or concealing the markings, identity or registration of a fishing vessel;
- (g) concealing, tampering with or disposing of evidence relating to an investigation or anticipated investigation;
- (h) multiple violations which together constitute a serious disregard of conservation and management measures; or
- (i) such other violations as may be specified in this Act;³⁷

The Cook Islands approach is preferred inasmuch as it spells out what amounts to a serious violation while the NZ law merely refers to UNFSA.

Where a serious violation is established, certain consequences follow: first, under Article 19.1(e) of UNFSA, if it is established that a vessel has been involved in the commission of a serious violation, the vessel does not engage in fishing on the

³⁶ Section 113B, *New Zealand Fisheries Act 1996* No 88 (as at 01 October 2008), Public Act.

³⁷ See Section 2, *Cook Islands Marine Resources Act 2005*, No. 7 of 2005, 29 July 2005.

high seas until such time as all outstanding sanctions imposed by the flag State in respect of the violation have been complied with. Second, under Article 21.6, where there are clear grounds for believing that a vessel has committed a serious violation, and the flag State has failed to take action or to respond, the inspectors can remain on board and secure evidence, and bring the vessel without delay to the nearest appropriate port.

Penalties

There is also a need to review the level of penalties imposed to ensure that they continue to be effective. One solution is to use a system of points, usually as part of scheme that applies to all financial penalties. This enables penalties to be increased very easily without the need to amend the Act from time to time.

Cancellation, Suspension and Seizure

There already exist several good models in the region for provisions relating to cancellation, suspension and seizure which, with only minor adaptation, can be used as effective templates for such provisions. This subject, though important, is not considered here, except to note that the seizure, or confiscation, of foreign fishing vessels has been considered in some recent decisions of the International Tribunal for Law of the Sea (ITLOS). These cases are discussed at the end of this chapter under “Bail, Bond and Confiscation”. These cases might necessitate a more detailed review of policies to be adopted with respect to confiscation of foreign fishing vessels.

Compliance and Enforcement Provisions

The provisions of both UNFSA and WCPF Convention will present a significant challenge, as they require the legislator to envisage situations in which its flag vessels are the offenders subject to inspection and others in which it is the inspecting State. These provisions need to be drafted with care as courts have traditionally interpreted and applied these provisions narrowly in order to provide basic protections to individuals.

Fortunately, there is already considerable experience in the drafting of legislation on such matters in the South Pacific. The most recent laws include provisions which address the following:

For the high seas:

- powers of inspectors on foreign and local vessels;
- boarding and inspection procedures for foreign vessels;
- investigation of “serious violations” (as defined in Article 21 of UNFSA);

- cooperation of persons on local fishing vessels with high seas inspectors; and
- powers of high seas inspectors.

General provisions:

- appointment and designation of authorised officers;
- powers of authorised officers;
- identification of authorised officers;
- obligation to comply with instructions of authorised officers;
- powers of authorised officers beyond the EEZ;
- offences committed against an authorised officer;
- destruction of evidence and avoidance of seizure;
- release, sale and forfeiture of detained property;
- inspection and enforcement measures regarding national vessels and foreign vessels;
- inspection and enforcement measures for vessels voluntarily in port; and
- immunity of authorised officers in good faith execution of their duties.

Therefore, the most important needs are, firstly, to check that all of the above aspects are covered, and secondly, to ensure that there are references to the power of authorised officers to enforce measures of the WCPFC, and other regional fisheries bodies. This latter point could be achieved by the inclusion of a general clause along the following lines:

The powers of an authorised officer under this Act shall extend to actions taken by an authorised officer with respect to measures adopted by WCPFC or other regional or subregional fisheries bodies, and to actions taken by such officers in support of compliance with or enforcement of such measures.

Alternative Mechanisms

The judicial process has often been criticised as being unduly lengthy, and that its strict insistence of high standards of proof can lead to too few successful prosecutions for illegal fishing. In many instances, the situation has been ameliorated to a limited extent by providing that fisheries offences are triable summarily, that is, usually before a magistrate and without a jury.

One solution has been the introduction of a system of administrative penalties for dealing with fisheries offences. This was specifically referred to in the IPOA-IUU as one possible approach that could be adopted. The main advantage of this approach is that it enables the tribunal to apply a lower standard of proof than is

possible in a full criminal trial (usually accepting proof on the civil standard of balance of possibilities rather than on the criminal standard of beyond reasonable doubt), it makes possible expedited hearings, and it can also include the possibility of a negotiated settlement of the case.

This method has been adopted in the United States and in a number of the island States of the South Pacific. Despite the fact that it involves a possible diminution of their legal rights, it is often popular with fishers as it enables a speedy resolution of their case.

This approach may not work in all countries as there may be constitutional or legal reasons why such a system cannot be introduced. In some countries, a system of “compounding” of offences is used. This is also an alternative to the use of administrative or civil penalties, but compounding usually lacks the safeguards built into the more formally structured administrative or civil penalty system.

“Long Arm” (Lacey Act) Jurisdiction

One method to promote compliance that has been adopted in a number of laws is the so called “long arm” or Lacey Act laws. Such laws typically make it unlawful to import fish that has been taken contrary to the laws of another country.

In a study of national legislative options to combat IUU fishing, Kuemlangan gave as a model of such a provision the following:

- (1a) on his own account, or as partner, agent or employee of another person, lands, imports, exports, transports, sells, receives, acquires or purchases; or
- (1b) causes or permits a person acting on his behalf, or uses a fishing vessel, to land, import, export, transport, sell, receive, acquire or purchase, any fish taken, possessed, transported or sold contrary to the law of another State shall be guilty of an offence and shall be liable to a fine not exceeding (insert monetary value).
- (2) This section does not apply to fish taken on the high seas contrary to the laws of another State where (insert name of country) does not recognise the right of that State to make laws in respect of those fish.
- (3) Where there is an agreement with another State relating to an offence referred to in subsection (1) (b), the penalty provided by subsection (1), or any portion of it according to the terms of the agreement, shall, after

all the costs and expenses have been deducted, be remitted to that State according to the terms of the agreement.³⁸

Bail, Bond and Confiscation Issues

One matter which is worth reconsidering in possibly all of the laws of the members States is the provision of bond and bail issues. Article 73 of the United Nations Convention on the Law of the Sea (LOSC) states: “*Arrested vessels and their crews shall be promptly released upon the posting of a reasonable bond or other security.*”³⁹ The meaning of this provision has been subject to interpretation in cases before ITLOS. The most important to date is the *Volga* case.⁴⁰ In this case, Australia sought, *inter alia*, to impose as a condition for the release of the vessel an obligation to carry certain vessel monitoring scheme (VMS) equipment.

The Tribunal commented generally about Article 73.2 in the following terms:

73. In interpreting the expression “bond or other security” set out in article 73, paragraph 2, of the Convention, the Tribunal considers that this expression must be seen in its context and in light of its object and purpose. The relevant context includes the provisions of the Convention concerning the prompt release of vessels and crews upon the posting of a bond or security. These provisions are: article 292; article 220, paragraph 7; and article 226, paragraph 1(b). They use the expressions “bond or other financial security” and “bonding or other appropriate financial security”. Seen in this context, the expression “bond or other security” in article 73, paragraph 2, should, in the view of the Tribunal, be interpreted as referring to a bond or security of a financial nature. The Tribunal also observes, in this context, that where the Convention envisages the imposition of conditions additional to a bond or other financial security, it expressly states so. Thus article 226, paragraph 1(c), of the Convention provides that “the release of a vessel may, whenever it would present an unreasonable threat of damage to the marine environment, be refused or made conditional upon proceeding to the nearest appropriate repair yard”. It follows from the above that the non-financial conditions cannot be considered components of a bond or other financial security for the purpose of applying article 292 of the Convention in respect of an alleged violation of article 73, paragraph 2, of the Convention. The object and purpose of article 73, paragraph 2,

³⁸ See generally Kuemlangan, B. *National Legislative Options to Combat IUU Fishing*, AUS:IUU/2000/9 <http://www.affa.gov.au/ecoiuuf/papers.html> This scheme is discussed in detail at p. 13.

³⁹ United Nations Convention on the Law of the Sea, Montego Bay, Jamaica, concluded on 10 December 1982, in force 16 November 1994, 1833 UNTS 3; 21 ILM 1261 (1982).

⁴⁰ ITLOS, *The “Volga” Case (Russian Federation v. Australia) (Prompt Release)*, Case No. 11, Judgment on 23 December 2002.

read in conjunction with article 292 of the Convention, is to provide the flag State with a mechanism for obtaining the prompt release of a vessel and crew arrested for alleged fisheries violations by posting a security of a financial nature whose reasonableness can be assessed in financial terms. The inclusion of additional non-financial conditions in such a security would defeat this object and purpose.

73. The Respondent has required, as part of the security for obtaining the release of the *Volga* and its crew, payment by the owner of one million Australian dollars. According to the Respondent, the purpose of this amount is to guarantee the carriage of a fully operational monitoring system and observance of Commission for the Conservation of Antarctic Marine Living Resources conservation measures until the conclusion of legal proceedings. The Respondent explained that this component of the bond was to ensure "that the *Volga* complies with Australian law and relevant treaties to which Australia is a party until the completion of the domestic legal proceedings"; that the ship does not "enter Australian territorial waters other than with permission or for the purpose of innocent passage prior to the conclusion of the forfeiture proceedings"; and further to ensure that the vessel "will not be used to commit further criminal offences".
74. The Tribunal cannot, in the framework of proceedings under article 292 of the Convention, take a position as to whether the imposition of a condition such as what the Respondent referred to as a "good behaviour bond" is a legitimate exercise of the coastal State's sovereign rights in its exclusive economic zone. The point to be determined is whether a "good behaviour bond" is a bond or security within the meaning of these terms in articles 73, paragraph 2, and 292 of the Convention.
75. The Tribunal notes that article 73, paragraph 2, of the Convention concerns a bond or a security for the release of an "arrested" vessel which is alleged to have violated the laws of the detaining State. A perusal of article 73 as a whole indicates that it envisages enforcement measures in respect of violations of the coastal State's laws and regulations alleged to have been committed. In the view of the Tribunal, a "good behaviour bond" to prevent future violations of the laws of a coastal State cannot be considered as a bond or security within the meaning of article 73, paragraph 2, of the Convention read in conjunction with article 292 of the Convention.⁴¹

⁴¹ ITLOS, *The "Volga" Case (Russian Federation v. Australia) (Prompt Release)*, Case No. 11, Judgment on 23 December 2002. Paragraphs 73 – 75.

Australia had argued in support of a very wide interpretation of the provisions of Article 73.2, which, it can be seen above, was not accepted by the Tribunal. It should also be noted that Australia, in its submissions, had also explained Australian law in the following terms (which is probably also broadly relevant to the legal systems of many FFA members):

16. ... Article 73(2) provides: “Arrested vessels and their crews shall be promptly released upon the positing of a reasonable bond or other security.” That is, the right to prompt release exists in relation to both vessels and their crews. However, in relation to an action alleging non-compliance with Article 73(2), Article 292(1) provides:

Where the Authorities of a State Party have detained a vessel flying the flag of another State Party and it is alleged that the detaining State has not complied with the provisions of this Convention for the prompt release of the vessel or its crew upon the positing of a reasonable bond ...

17. When used in this context, the word “or” is: a “particle co-ordinating two or more words ... between which there is an alternative.”⁴²
18. This indicates that the prompt release of each of the vessel and the crew are separate issues. An assessment of what is “reasonable” will depend upon the circumstances of the case. However, the facts that are relevant to an assessment of what is reasonable in relation to the release of the vessel will be different from the facts that are relevant to an assessment of what is reasonable in relation to the release of the crew. This difference is reflected in domestic law. Under Australian law, the setting of a bond for the vessel is an administrative matter and the setting of bail or sureties for the crew is a matter of criminal law. Australian law is not unusual in this respect.⁴³

It would be useful to review the bail and bond processes in each country to ascertain if the problems encountered in the Volga case could arise. It may be necessary to put into fisheries laws a specific provision addressing bail and bond issues (alongside forfeiture of vessel, gear and catch) in order to achieve compliance with the provisions of Article 73.

An alternative approach, though a more risky one, is to leave the matter as it is, namely with the courts having very wide powers on bail in criminal cases

⁴² *The Oxford English Dictionary*, Second Edition, Clarendon Press, Oxford, 1989, Volume X, p. 882.

⁴³ ITLOS, *The “Volga” Case (Russian Federation v. Australia) (Prompt Release)*, Case No. 11, Judgment on 23 December 2002. Paragraphs 16 – 18.

concerning the master and crew and bond issues with respect to the vessel gear, and catch, but arguing in each case for the exercise of judicial or administrative discretion in favour of conforming with the provisions of Article 73 as interpreted by ITLOS.

In its more recent judgments it is possible to detect also a tendency toward adopting a human rights perspective towards the provisions of Article 73, as the following comments in the 2004 *Juno Trader* case reveal:

The Tribunal considers that article 73, paragraph 2, must be read in the context of article 73 as a whole. The obligation of prompt release of vessels and crews includes elementary considerations of humanity and due process of law.⁴⁴

This was also expressed very firmly by Judges Mensah and Wolfrum in their separate opinion in the *Juno Trader* case, where as well as endorsing the above paragraph,⁴⁵ they added:

[T]he tribunal must operate on the basis that the obligation of States ... under the convention and general international law, includes the obligation not to deny justice or due process of law, especially in respect of legal and judicial procedures that involve interference with the property rights of aliens.⁴⁶

This position has been reiterated in the latest case with particular reference to confiscation of a foreign fishing vessel.⁴⁷ The Tribunal in the *Tomimaru* case stated:

A decision to confiscate eliminates the provisional character of the detention of the vessel rendering the procedure for its prompt release without object. Such a decision should not be taken in such a way as to prevent the shipowner from having recourse to available domestic judicial remedies, or as to prevent the flag State from resorting to the prompt release procedure set forth in the Convention; nor should it be taken through proceedings inconsistent with international standards of due process of law. In particular, a confiscation decided in unjustified haste would jeopardize the operation of article 292 of the Convention.⁴⁸

⁴⁴ ITLOS, *Juno Trader (Saint Vincent and the Grenadines v. Guinea Bissau)*, Case No. 13, 18 December 2004, para. 77.

⁴⁵ *Juno Trader Case*, Joint Separate Opinion of Judges Mensah and Wolfrum, para. 5. Online at: www.itlos.org/case_documents/2004/document_en_253.pdf. Accessed on 28 February 2008.

⁴⁶ *Ibid.*, para. 6.

⁴⁷ ITLOS, *The Tomimaru Case (Russian Federation v. Japan)*, Case No. 15, 6 August 2007.

⁴⁸ *Ibid.*, para. 76.

It should be noted that some of the judges in the Tomimaru case appended separate opinions disagreeing with the above proposition.⁴⁹

Because this raises issues wider than the fisheries law, it would be useful in the first instance to study this matter separately, for example, by reviewing the laws of individual countries on the subject of bond, bail, forfeiture (of vessel, gear and catch). Against that background, it might be possible to formulate a common regional approach to these matters.

⁴⁹ See Declaration of Judge Nelson, Separate Opinions of Judge Jesus and Judge Lucky, available at <www.itlos.org/cgi-bin/cases/case_detail.pl?id=15&lang=en>, 28 February 2008. Judge Yanai noted that, “National prompt release procedure should be based on the principle of due process of law in order to ensure fairness in its implementation” (para. 3, Declaration of Judge Yanai), available at <www.itlos.org/cgi-bin/cases/case_detail.pl?id=15&lang=en>, 28 February 2008.

Bibliography

Agreement for the Implementation of the Provision of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. New York, Concluded on 4 August 1995, in force 11 December 2001, 34 ILM 1542 (1995); 2167 UNTS 88.

Caddy, J.F. and Cochrane, K. L. 'A Review of Fisheries Management Past and Present and Some Future Perspectives for the Third Millennium' in *Ocean and Coastal Management*, No. 44, 2001, pp. 653-666.

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Honolulu, USA, 5 September 2000.

Cook Islands, *Cook Islands Marine Resources Amendment Act 1990*, 13 September 1990.

Cook Islands, *Cook Islands Marine Resources Act 2005*. No. 7 of 2005, 29 July 2005.

Edeson, W. *Legal Aspects of the Collection of Fisheries Data*, FAO Fisheries Circular No. 953, FAO, Rome, 2000.

FAO, *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*, adopted at the 27th Session of the FAO Conference, 24 November 1993.

FAO, *The Ecosystem Approach to Fisheries: Issues Terminology, Institutional Foundations, Implementation and Outlook*, FAO Fisheries Technical Paper No. 443, Rome, 2003.

FAO, *Code of Conduct for Responsible Fisheries*, adopted at the 28th Session of the FAO Conference, Rome, Italy, 31 October 1995.

FAO, *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing*, adopted at the Twenty-fourth Session of COFI, Rome, Italy, 2 March 2001.

FAO, *Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing*, Rome, 2006.

ITLOS, *Juno Trader (Saint Vincent and the Grenadines v. Guinea Bissau)*, Case No. 13, ITLOS, 18 December 2004.

ITLOS, *The “Volga” Case (Russian Federation v. Australia) (Prompt Release)*, Case No. 11, Judgment on 23 December 2002.

ITLOS, *The Tomimaru Case (Russian Federation v. Japan)*, Case No. 15, 6 August 2007.

Johannesburg Plan of Action, adopted at the conclusion of the World Summit on Sustainable Development (WSSD) in September 2002.

Kuemlangan, B. *National Legislative Options to Combat IUU Fishing*, AUS:IUU/2000/9. Online at: <http://www.affa.gov.au/ecoiuuf/papers.html>

Marshall Islands, *Fishing Access and Licensing Act* [51 MIRC Ch 4], Marshall Islands Revised Code 2004.

New Zealand, *New Zealand Fisheries Act 1996*, No. 88 (as at 01 October 2008), Public Act.

The Oxford English Dictionary, Clarendon Press, Oxford, 1989.

United Nations Conference on Environment and Development (UNCED), Agenda 21, Rio de Janeiro, Brazil, 03-14 June 1992.

United Nations Convention on the Law of the Sea, Montego Bay, Jamaica, concluded on 10 December 1982, in force 16 November 1994, 1833 UNTS 3; 21 ILM 1261 (1982).

United States, *Lacey Act*, 16 U.S.C. §§ 3371-3378; Pub. L. 97-79, as amended (2002).

World Summit on Sustainable Development, Johannesburg, South Africa, August 26 - September 4, 2002.

Ocean Publications
Australian National Centre for Ocean Resources and Security (ANCORS)
University of Wollongong

Previous publications include:

Marine Wildlife Bycatch Mitigation: Global Trends, International Action and the Challenges for Australia by Sali Jayne Bache (2003).

ADF on the Beat: A Legal Analysis of Offshore Enforcement by the Australian Defence Force by Cameron Moore (2004).

Sea Control and Power Projection for Australia: Maritime Air Power and Air Warfare by Richard T. Menhinick (2005)

Copies can be ordered online:

<http://www.ancors.uow.edu.au/publications-oceans.html>

Navigating Pacific Fisheries

Navigating Pacific Fisheries analyses the legal and policy context for the conservation, management and exploitation of tuna fisheries in the Western and Central Pacific region. Each chapter analyses and explores a key legal or policy issue of the tuna fisheries with a particular focus on Pacific island interests. These fisheries have long been viewed as the primary development opportunity for many of the region's developing island States. While coastal fisheries provide important sources of traditional food and income to artisanal communities, the oceanic tuna fisheries are the cornerstone upon which many Pacific island States depend for revenue and economic activity. The book explores these matters in two parts: Part One focuses on the impacts of global legal and policy trends on the conservation and management of the Western and Central Pacific tuna fisheries; Part Two focuses on the impacts of regional legal and policy trends on the conservation and management of the Western and Central Pacific tuna fisheries.

Oceans Publications is an imprint of the Australian National Centre for Ocean Resources and Security (ANCORS). Consisting of new and significant refereed research, the Oceans Publications series reflects the Centre's multi-disciplinary research programme, which is both extensive and inclusive of most policy issues related to the sea. The Centre's current priority areas for research and publication include ocean policy and management, ocean governance and law, fisheries policy and marine environmental management, and maritime strategy and security.