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Fisheries Exploitation in the Indian Ocean

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- *To foster interstate cooperation* in the sustainable management of ocean resources and the peaceful resolution of maritime disputes.
- *To ensure a holistic discourse* on the human and environmental security of the Region among its states, peoples and communities.
- *To contribute to an understanding* of the causes as well as the effects of a wide range of non-traditional Regional security threats.
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Fisheries Exploitation in the Indian Ocean

Threats and Opportunities

Edited by
Dennis Rumley, Sanjay Chaturvedi and Vijay Sakhuja

IORG

INDIAN OCEAN RESEARCH GROUP

ISEAS

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CONTENTS

<i>Preface</i>	ix
<i>Contributors</i>	xi
<i>List of Abbreviations</i>	xiii
1. Fisheries Exploitation in the Indian Ocean Region <i>Dennis Rumley, Sanjay Chaturvedi, and Vijay Sakhuja</i>	1
Part I: Fisheries Policy Frameworks	
2. Environmental Security and Biodiversity: Critical Policy Themes and Issues <i>Swaran Singh</i>	21
3. Overview of Institutional Arrangements for Fisheries and Marine Biodiversity in the Indian Ocean <i>William R. Edeson</i>	39
4. A Policy Framework for Fisheries Conflicts in the Indian Ocean <i>Dennis Rumley</i>	54
5. The Indian Ocean Fishery: Resources and Exploitation Within and Outside National Jurisdictional Limits <i>Vivian Louis Forbes</i>	72
6. Competing Claims to Maritime Jurisdiction in the Indian Ocean: Implications for Regional Marine Biodiversity and Fisheries <i>Clive Schofield</i>	104

Part II: Fisheries Resource Exploitation

7. Indigenous Fishing in the Kimberley Region of Western Australia: A Case Study of Highly Regulated Fisheries in Coastal Communities 141
Hilary Rumley
8. The (In)Security of Fishermen in South Asia 163
A. Subramanyam Raju
9. Fisheries in the French Indian Ocean Territories 177
Christian Bouchard
10. Mauritius: A Seafood Hub? 194
Jean Houbert
11. The Impact of Ship Ballast on the Aquatic-based Food Supply Chain 227
Vijay Sakhuja

Part III: Fisheries Policy Directions

12. Geopolitics of Biological Prospecting: Emerging Perspectives on Antarctica and the Southern [Indian] Ocean 241
Sanjay Chaturvedi
13. Issues in Policy and Law in the Conservation of Marine Biodiversity: A Malaysian Case Study 268
Mohd Nizam Basiron
14. Regional Cooperation: A Case Study of the Western Indian Ocean Tuna Fisheries 279
Jane Mbendo and Martin Tsamenyi
15. Regulatory and Market-based Instruments in the Governance of Fisheries and Marine Protected Areas in the Indian Ocean Region: In Search of Cooperative Governance 298
Timothy Doyle and Marcus Haward

Contents	vii
16. The Future for Indian Ocean Fisheries <i>Sanjay Chaturvedi, Vijay Sakhuja, and Dennis Rumley</i>	325
<i>Index</i>	345

PREFACE

On behalf of the Indian Ocean Research Group (IORG) Inc. we would like to take this opportunity to sincerely thank the Sultanate of Oman for so generously hosting our 2007 Conference in Muscat. Particular thanks go to His Excellency Abdullah bin Hamad bin Saif Al-Busaidi for his patronage of the Conference. We also especially thank all of the officials from the Ministry of Fisheries Wealth, especially its Undersecretary, His Excellency Dr Hamed bin Said Al Aufi, and the local Conference organizers, Dr Ahmed Al-Hosni and Habib Abdullah Habib Al-Hasni. We are particularly grateful, however, to one person who has been instrumental in facilitating IORG links with Oman and in strengthening Indian Ocean relations more generally, and that is, His Excellency Said bin Nasser Al Khusaibi. Fortunately for us, His Excellency is a member of the IORG International Advisory Board. However, the Conference could not have taken place without the generous support of all of the sponsors — gold, silver and bronze.

We are also grateful to Ambassador K. Kesavapany, Director, Institute of Southeast Asian Studies (ISEAS), Singapore, for his wholehearted support for publishing the volume under the ISEAS banner. This has expanded the institutional linkage between ISEAS and IORG.

For all delegates, the Conference was an unforgettable experience, not only due to the excellent local organization to, from, and during the various Conference sessions, but also as a result of the memorable social programme, which included an incredible trip around Muscat harbour and beyond on a local, wheelchair-accessible *dhow* (a lateen-rigged ship) — thanks mainly to Tim Doyle's excellent organizational skills!

IORG also owes a great debt to the Indian Ambassador to Oman, His Excellency Ashok Kumar Attri, who very generously hosted a sumptuous reception at his wonderful Muscat residence.

Finally, the editors of this book once again thank all IORG Conference participants and contributors for their continuing fine scholarship, ongoing enthusiasm, patience, and, above all, their friendship.

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ABBREVIATIONS

ABPORE	Antarctic Bioprospecting Policy Regime
ACAM	Australian Collection of Antarctic Micro-Organisms
ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AFRC	Albion Fisheries Research Centre
AGOA	Africa Growth and Opportunity Act
APFIC	Asia-Pacific Fishery Commission
ARIF	Alliance for the Release of Innocent Fishermen
ASOC	Association of Southern Ocean Coalition
ATCM	Antarctic Treaty Consultative Meetings APEC
ATS	Antarctica Treaty System
BIOT	British Indian Ocean Territory
BOBLME	Bay of Bengal as a Large Marine Ecosystem
CBD	Convention on Biological Diversity
CCAMLR	Conservation of Antarctic Marine Living Resources
CCSA	Conservation Council of South Australia
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDD	Community-Driven Development
CECAF	Fishery Committee for the Eastern Central Atlantic
CFP	Common Fishing Policy
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLCS	Commission on the Limits of the Continental Shelf
CMATS	Treaty on Certain Maritime Arrangements in the Timor Sea
CMS	Convention on Migratory Species of wild Animals

CORDIO	Coral Reef Degradation in the Indian Ocean
CRAMRA	Convention on the Regulation of Antarctic Mineral Resource Activities
CSA	Commonwealth Sugar Agreement
CSFS	Convention relating to Straddling Fish Stock
CZI	Coastal Zone Inquiry
DWFNs	Distant Water Fishing Nations
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EPBC	Environment Protection and Biodiversity Conservation Act
ESD	Ecologically Sustainable Development
EU	European Union
FAD	Fish Attracting Devices
FAO	Food and Agriculture Organisation
FCMZ	Fishing and Conservation Management Zone
FDI	Foreign Direct Investment
FMM	Farm in Mahebourg
FOCs	Flags of Convenience
FPA	Fisheries Partnership Agreements
FRMA	Fish Resources Management Act
FSAL	French Southern and Antarctic Lands
GABMP	Great Australian Bight Marine Park
GATT	General Agreement on Tariffs and Trade
GEF	Global Environment Facility
GFCM	General Fisheries Commission for the Mediterranean
HAB	Harmful Algal Blooms
HACCP	Hazard Analysis Critical Control Point
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
INCAC	Independent Commission Against Corruption
IOC	Indian Ocean Commission
IOFC	Indian Ocean Fisheries Commission
IOMAC	Indian Ocean Marine Affairs Cooperation
IOR	Indian Ocean Region

IOR-ARC	Indian Ocean Rim-Association for Regional Cooperation
IORG	Indian Ocean Research Group
IOTC	Indian Ocean Tuna Commission
IPCC	Intergovernmental Panel on Climate Change
IRS	Integrated Resort Scheme
ISEAS	Institute of Southeast Asian Studies
ISI	Inter Service Intelligence
ITLOS	International Tribunal for the Law of the Seas
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated fishing
LDC	Least Developed Countries
LDWF	Long Distance Water Fleets
LME	Large Marine Ecosystem
LTTE	Liberation Tigers of Tamil Eelam
MCS	Monitoring, Control and Surveillance
MFA	Multi-Fibre Agreement
MPAs	Marine Protected Areas
MRRC	Maritime Risk Reduction Centre
MSC	Marine Stewardship Council
MZI	Maritime Zone of India
NAFO	Northwest Atlantic Fisheries Organization
NAMBIP	National Marine Biodiversity Plan
NEAFC	North-East Atlantic Fisheries Commission
NEERI	National Environmental Engineering Research Institute
NEMA	National Environmental Management Act
NIC	Newly Industrialized Countries
NIO	National Institute of Oceanography
NNTT	National Native Title Tribunal
NOAA	National Oceanic and Atmospheric Administration
NPB	National Policy on Biological Diversity
NSF	National Science Foundation
NT	Northern Territory
NTA	Native Title Act
PILER	Pakistan Institute of Labour Education and Research
RAW	Research and Analysis Wing
RECOFI	Regional Commission for Fisheries

RFMO	Regional Fisheries Management Organizations
ROO	Rules of Origin
SADC	Southern Africa Development Community
SAFE	Southern Africa Far East
SCAR	Scientific Committee on Antarctic Research
SEAFO	South-East Atlantic Fisheries Organisation
SIDS	Small Island Developing States
SIOFA	South Indian Ocean Fisheries Agreement
SLOCS	Sea Lanes of Communication
SWIOFC	South West Indian Ocean Fisheries Commission
TAC	Total Allowable Catches
TNCs	Transnational Corporations
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNASFSHMFS	UN Agreement on Straddling Fishing Stocks and Highly Migratory Fishing Stocks
UNCED	United Nations Conference on Environment and Development
UNCLOS	UN Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFSA	United Nations Fish Stocks Agreement
VRS	Voluntary Redundancy Scheme
WCED	World Commission on Environment and Development
WCPFC	Western and Central Pacific fisheries Ocean
WFP	World Food Program
WIO	Western Indian Ocean
WIOTO	Western Indian Ocean Tuna Organization
WIPO	World Intellectual Property Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wide Fund for Nature