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REGIONAL COOPERATION TO COMBAT ILLEGAL FISHING IN THE INDIAN OCEAN

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Discussion Outline

- ▶ Types of Illegal Fishing in the Indian Ocean
- ▶ Existing Cooperative Mechanisms to Counter Illegal Fishing
- ▶ Prospects for Strengthening Regional Cooperation



Key Points

- ▶ Illegal fishing in the Indian Ocean has many facets: from illegal fishing activities at sea and 'fisheries crime', to the trade of 'illegal fish' and unregulated harvest of marine living resources in the deep sea
- ▶ Multilateral mechanisms to counter illegal fishing in the Indian Ocean require a fresh look at traditional fisheries management and regional cooperation beyond the scope of regional fisheries bodies



Illegal Fishing Activities in the Indian Ocean

	Categories of Illegal Fishing	Actors	Maritime Zone	Drivers	Implications
1	Use of destructive fishing methods	Local fishermen	Territorial sea and archipelagic waters	Lack of effective enforcement	Conservation and management
2	Fishing without a licence	Local fishermen	EEZ	Lack of adequate regulations	Conservation and management
		Foreign fishing vessels	EEZ, CS	Lack of effective enforcement Commercial gain	Conservation and management Economic Fisheries conflict
		Vessels flagged to non-parties of regional fisheries management organisations	High seas	Non-participation in regional fisheries management organisations Freedom of fishing	Conservation and management Economic Political (relations between States- low degree)

	Categories of Illegal Fishing	Actors	Maritime Zone	Drivers	Implications
3	Fishing outside bilateral treaty provisions	Vessels entitled to fish under a bilateral agreement	Shared TS, EEZ, and CS areas	Unclear treaty provisions Ineffective fisheries enforcement	Conservation and management Political relations (high degree)
		Foreign fishermen exercising traditional fishing	Shared TS, EEZ, and CS	Lack of clear provisions or regulations on scope of traditional fishing activities	Conservation and management Political relations (high degree)
4	Fishing contrary to RFMO measures	Vessels authorised to fish in RFMOs	High seas	Lack of effective enforcement framework	Conservation and management Economic
		Third party fishing vessels	High seas	Lack of effective enforcement framework Freedom of fishing	Conservation and management Political (relations between States- low degree)

	Categories of Illegal Fishing	Actors	Maritime Zone	Drivers	Implications
5	Fishing vessels involved in transnational criminal activities ('fisheries crime')	Criminals (Generally not fishermen)	TS, EEZ, HS	Ineffective monitoring Inadequate legal framework Lack of identification of beneficial owners	Maritime security Human safety (e.g. <i>Enrica Lexie</i>) Conservation and management
6	Landing of illegally caught fish	Local fishermen Foreign vessels	TS, EEZ, HS	Lack of effective port monitoring	Conservation and management Economic
7	Illegal transshipment of fish at sea	Local fishermen Foreign vessels	EEZ, HS	Lack of effective at-sea monitoring	Conservation and management
8	Illegal trade of commercially valuable fish species (both marine capture and aquaculture)	Local fishermen Foreign vessels	TS, EEZ, HS	Commercial gain Lack of effective port monitoring Lack of certification and traceability systems	Economic Conservation and management

Determining Areas of Cooperation

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Governing Framework

	Categories of Illegal Fishing	Actors	Maritime Zone	Implications	Framework
1	Use of destructive fishing methods	Local fishermen	Territorial sea and archipelagic waters	Conservation and management	Domestic fisheries legislation
2	Fishing without a licence	Local fishermen	EEZ	Conservation and management	Domestic fisheries legislation Regional fisheries bodies (BOBP-IGO, RECOFI, PERSGA)
		Foreign fishing vessels	EEZ, CS	Conservation and management Fisheries conflict	Regional fisheries bodies (BOBP-IGO, RECOFI, PERSGA, SWIOFC) Regional integration organisations (SADC, COMESA, EAC, IOC) Joint/coordinated patrols
		Vessels flagged to non-parties of regional fisheries agreements	High seas	Conservation and management Political relations low degree	Regional fisheries management organisations (RFMOs) (IOTC, SIOFA) International agreements

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3	Fishing outside bilateral treaty provisions	Vessels entitled to fish under a bilateral agreement	Shared territorial sea and EEZ areas	Conservation and management Political relations (high degree)	Bilateral agreements
		Foreign fishermen exercising traditional fishing	Shared territorial sea EEZ, and CS	Conservation and management Political relations (high degree)	Bilateral agreements
4	Fishing contrary to RFMO measures	Vessels authorised to fish in RFMOs	High seas	Conservation and management	Regional fisheries bodies with policy functions (BOBP-IGO, RECOFI, PERSGA, SWIOFC)
		Third party fishing vessels	High seas	Conservation and management Political (relations between States- low degree)	Regional fisheries management organisations (IOTC, SIOFA) International agreements

	Categories of Illegal Fishing	Actors	Maritime Zone	Implications	Framework
5	Fishing vessels involved in transnational criminal activities	Criminals (Generally not fishermen)	TS, EEZ, HS	Maritime security Human safety (e.g. Enrica Lexie) Conservation and management (e.g. piracy impact in the IOTC area)	Bilateral and multilateral arrangements IOFMC, UNODC INTERPOL Anti-money laundering groups
6	Landing of illegally caught fish	Local fishermen	HS	Conservation and management	Domestic legislation
		Foreign vessels	EEZ, HS	Economic	RFMOs (IOTC, SIOFA)
7	Illegal transshipment of fish	Local fishermen	EEZ, HS	Conservation and management	International agreements
		Foreign vessels	EEZ, HS		
8	Illegal trade of commercially valuable fish species (both marine capture and aquaculture)	Local fishermen Foreign vessels	TS, EEZ, HS	Economic Conservation and management	International agreements RFMOs (IOTC, SIOFA) Regional (economic) intergovernmental organisations (SADC, COMESA, EAC, IOC)

The Future

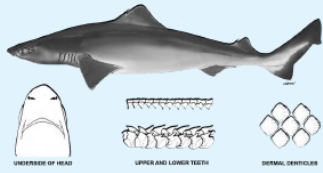
- ▶ Potential increase in **fisheries conflict** with political implications
 - ▶ Between small scale and industrial vessels (domestic issue)
 - ▶ Between domestic and foreign vessels (bilateral issue)
- ▶ Evolving characterisation of illegal fishing as **fisheries crime**
- ▶ Increasing regulation of **aquaculture products** bound for international trade
- ▶ Illegal fishing in **vulnerable marine ecosystems** (VMEs) in areas beyond national jurisdiction (ABNJ)
- ▶ Increasing emphasis on **port enforcement** and **market-related mechanisms** to curb illegal fishing and **trade** of 'illegal fish'

New Identification Tools for Deep-sea Cartilaginous Fishes of the Indian Ocean

Extract from Volume 1 of the catalogue
Link for online access to the catalogues is found under What's New on the first page.

In the last year FAO has released two species catalogues, comprehensive reviews of the deep-sea cartilaginous fish species of the Indian Ocean, intended to support users when the identification of a species is particularly problematic.



Similar catalogues are planned for other regions, the next being the southeastern Atlantic Ocean.




FAO Names: E6 – Gulper shark, F1 – Spade-nose common, Sp – Quailshark
Fig. 98 *Cetorhinus maximus*

Moreover, to support observers, scientists, and crew members working on board of fishing vessels and at landing points in the Indian Ocean, a field identification guide was developed.

The guide includes a selection of species all of which are described, depicted with a colour illustration and photo, and key distinguishing features of similar looking species in the area are highlighted allowing for easy and accurate identification in the field.




In June 2014, a workshop was organized at the Albion Fisheries Research Center in Mauritius with the aim of training scientists from countries bordering the Indian Ocean in the identification of deep-sea cartilaginous fishes and sample processing. The workshop was attended by 19 scientists who were introduced to the anatomical features and taxonomy of the deep-sea sharks occurring in the Indian Ocean and to the methodologies of processing and identifying a selection of specimens caught in the region.



FAO has also started a process that will result in the production of user-friendly identification tools for the two other main groups of deep-sea species impacted by fishing operations: sponges and corals. The high diversity in terms of number of species together with a lack of comprehensive information on their distribution and abundance for several regions make this additional project very challenging.

Finally, FAO is developing a manual that will facilitate the collection of data and information on deep-sea species by observers, scientists and fishers. The manual will include recommendations for the collection of data on species caught in deep-sea fisheries worldwide and will focus on user-friendly guidance on how to gather biological information from a specimen.



© Oddgeir Alvheim
African spotted catshark (*Holohalaelurus punctatus*)

Improving Regional Cooperation

- ▶ Need to **revisit and reinvent** current fisheries management framework
 - ▶ Increasing complexity of fisheries issues (economic and maritime security implications beyond conservation)
 - ▶ Expansion of the role of navies in regional fisheries conservation (i.e. high seas boarding and inspection regime in the IOTC)
 - ▶ Role of IORA Fisheries Support Unit
 - ▶ Development of stricter port state measures and implementation of the FAO Port State Measures Agreement
 - ▶ Development and participation in data sharing arrangements (e.g. INTERPOL, maritime crime forum)
 - ▶ Emerging role of regional economic integration organisations to address illegal fishing and other fisheries issues (i.e. directly addressing food security, food security and economic development)
 - ▶ Regional approach to address increasing regulatory requirements (EU, US, Japan)
 - ▶ Need for a dispute resolution mechanism (between States and between fishermen)



Improving Regional Cooperation

- ▶ Move towards **blue economy** in fisheries
 - ▶ Emphasis on the value of aquaculture, small scale fisheries, and possibly VMEs
 - ▶ Illegal harvest and trade of marine living resources for commercial gain would require a certification system in addition to traditional enforcement
 - ▶ Application of marine spatial planning tools that will be a basis for effective enforcement
 - ▶ Focus on compliance rather than purely surveillance and enforcement mechanisms
 - ▶ Application of incentives to encourage compliance (proactive) rather than sanctions against illegal fishing (reactive)





Thank you



For questions, email mpalma@uow.edu.au