



# The Emerging International Regulation of New and Exploratory Fisheries

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Nereus Annual Meeting  
27 May 2015



**Universiteit Utrecht**

# Introduction

- Context to Nereus research programme
- Explanatory context: international regulation of fisheries and the sea
- New and exploratory fisheries research project
- NEF: international arrangements
- NEF: regional practices
- Emerging themes and challenges in developing effective regulation



# Nereus research

- Legal aspects of fisheries law and the practice of RFMOs
- Climate change and the allocation of transboundary fish stocks: balancing adaptation and stability
- Cooperation between RFMOs and other international bodies and processes towards ecosystem-based fisheries and oceans governance
- Focus of initial research on new and exploratory fisheries and experimental fishing effort



# Fisheries regulation and international law

- LOS a branch of international law; IL generally derived from four core sources:
- Treaties (e.g. codifications of 1958 and 1982)
- Custom (arguably driftnet fishing restrictions)
- General principles of law
- Ancillary sources (e.g. Grotius and *mare liberum*)
- IL characterised by consensus, although LOS is a rare example of a system with compulsory dispute resolution mechanisms

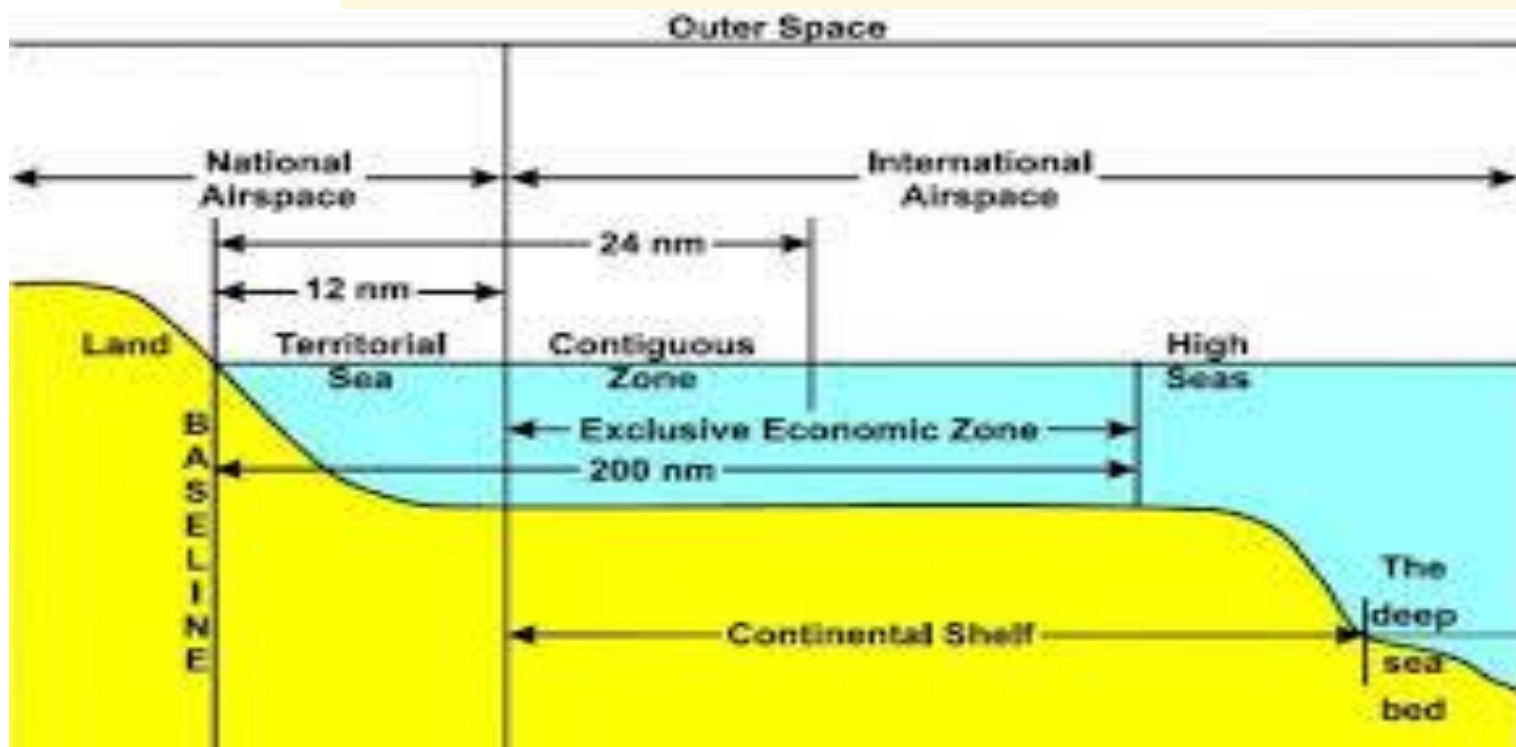


# Law of the Sea

- First attempts at codification in 1920s/30s under League of Nations
- No consensus but series of conventions adopted in 1958
- Number of unanswered questions – UNCLOS II negotiations 1960
- UNCLOS III 1973-1982, inspired by mineral extraction issues in the deep sea-bed
- UN Convention on the Law of the Sea 1982 – the Constitution of the Oceans
- Entered into force 1994 after de facto revision
- Currently parties
- Adopts a zonal approach to marine governance



# LOSC



# Legal framework of fisheries

- LOSC prescribes broad rights and duties of states
- UN Fish Stocks Agreement 1995 addresses transboundary issues
- FAO – Guidelines, Compliance Agreement, IPOAs
- UN General Assembly
- Role of RFMOs



# Fisheries and the LOSC

- General provisions address marine fisheries – no discussion of internal waters or aquaculture matters
- Transboundary stocks– straddling stocks (encompass one or more EEZs and high seas), shared stocks (2 or more EEZs), highly migratory species (listed in Annex I), anadromous and catadromous species
- Separate regime for marine mammals
- Rights and responsibilities of coastal and flag states
- Coastal states: right to fish in zones of jurisdiction; obligations of responsible stock husbandry
- Flag states: rights to fish on high seas, can seek surplus TAC within EEZs; duty to cooperate on transboundary stocks and control vessels: ITLOS AO – due diligence





- EEZs: Coastal state determines TAC, elaborates conservation measures based on best available science, maintain stocks at MSY levels and take into account dependent/associated species (Art 61); promote optimal utilisation and regulate access to surplus (Art 62)
- High Seas: general right to fish subject to international obligations (Art 116), adopt conservation measures in respect of their nationals (Art 117) duty to cooperate for conservation and management of living resources (Art 118) and determine TAC and associated conservation measures, while not discriminating against any particular state (Art 119)



# **NEW AND EXPLORATORY FISHERIES**



# Research objectives

- Map the legal requirements incumbent in new and exploratory fishing effort
- Appraise how consistently these obligations have emerged across a range of regulatory actors and legal sources
- Collate state and RFMO practice in respect of NEF requirements
- Identify future regulatory and interpretive problems for NEF



# New and Exploratory Fisheries

- Terminology – “new” fisheries and “exploratory” fisheries, although used interchangeably by some RFMOs
- Strong influence of CCAMLR in development of concept
- Emergence of new and exploratory fisheries – climate change effects on fish dispersal and habitats; new target catch; new areas of activity; new techniques
- Such fisheries characterised by limited data, *ad hoc* regulation and emerging management plans and principles



# NEF concerns

- Wider impacts on target stock
- Impacts on non-target species
- Impacts upon marine environment – especially Vulnerable Marine Ecosystems and bottom fishing
- Potential competition with existing fisheries, especially subsistence/indigenous fisheries
- Lack of clear management principles
- Lack of data
- Oversight and compliance



# NEF: International Framework

- Fishing entitlements established through LOSC 1982
- UN Fish Stocks Agreement 1995
- Additional standards – UNGA imperatives and FAO Guidelines
- General principles of international/environmental law
- Practice of RFMOs
- Emerging framework demonstrates some consistency but also marked regional divergences



# LOSC

- Fisheries arrangements and accompanying conservation obligations
- EEZ- Art 61: prevent over-exploitation, associated stocks, transfer of data; Art 62: establish laws and regulations
- High Seas: Art 87, freedom of fishing, subject to obligation of due regard
- Arts 118 & 119: obligation to cooperate in conservation and management of high seas living resources
- Requirement of due diligence of coastal and flag states in this respect reiterated by ITLOS in April 2015 (context of IUU fishing)



# UN Fish Stocks Agreement

- First formalised recognition of NEF in a global fisheries instrument
- Article 6(6): “For new or exploratory fisheries, States 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.”





# Ancillary instruments

- Law and policy on NEF developed in context of concerns for responsible fisheries in marine ecosystems: particular reference to deep-sea fisheries and bottom-trawling
- UNGA Resolutions, especially A/RES/61/105
- FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas; notes concerns over vulnerable marine ecosystems and potentially destructive fishing techniques
- Both instruments influential on practice and policy of RFMOs



# UNGA

- Resolution 61/105 raised concerns over ecological elements of fisheries
- Imperative to identify VMEs and address adverse impacts inter alia **“through new and exploratory fisheries”** (para 83(b))
- Influential basis for development of NEF standards within RFMOs



# FAO Guidelines on Deep-Sea Fisheries

- DSFs have three stages of development: experimental, exploratory and established fisheries
- Appropriate mechanism needed for reviewing assessments; scientific consultation
- International observer programmes should be implemented for DSFs: “Higher levels of coverage are required, in particular for experimental and exploratory stages of a fishery’s development”
- Appropriate set of rules and regulations” is a core element of a “functioning regulatory framework” for opening of areas to exploratory fisheries
- Precautionary conservation and management measures required: includes effort limits, review, VME consideration, monitoring



# General principles

- Precaution: status of precautionary principle; stance of ITLOS in *Southern Bluefin Tuna* case (experimental fishing)
- Due diligence: amorphous, but seemingly requires impact assessments and appreciation of scientific advice
- Practical toolkit for management: EIA, SEA processes



# Identifying practices

- Number of RFMOs developing policies for NEF
- Recent conventions and revisions recognising NEF
- Long-standing practice in CCAMLR
- Emerging regulatory frameworks elsewhere, e.g. NEAFC, SEAFO, SPRFMO
- Prospective NEF competences in amended and emerging treaties



# CCAMLR

- Most entrenched practices on NEF; informed UNFSA
- Specific policies developed for both “new” and “exploratory” fisheries
- Distinction triggered on levels of available data
- Developed to curtail unilateralism and unsustainable practices in CCAMLR Area
- Agreement by consensus
- Primary NEF: Patagonian and Antarctic toothfish (demersal longlining); potential potting for crabs and toothfish



# CCAMLR: New fisheries

- CM 21-01 (2013): “fishery on a species using a particular fishing method in a statistical sub-area or division for which: (i) information on distribution, abundance, demography, potential yield and stock identity from comprehensive research/surveys or exploratory fishing have not been submitted to CCAMLR;  
(ii) catch and effort data have never been submitted to CCAMLR;  
(iii) catch and effort data from the two most recent seasons in which fishing occurred have not been submitted to CCAMLR.”
- Bottom-trawling in high seas areas of the CCAMLR Area also considered as a “new” fishery and will require approval by Commission for specific areas



# CCAMLR: New fisheries

- Process: notification, Fisheries Operation Plan and commitment to implement Data Collection Plan
- CCAMLR process must run its course; parties cannot implement a new fishery pending this decision
- Scientific Committee develops DCP
- New fisheries only open to vessels suitably equipped to comply with conservation measures and with a clean record in terms of IUU fishing





# CCAMLR: Exploratory fisheries

- CM 21-02 (2013):
- “any fishery previously considered “new” under CM 21-01; continues as an exploratory fishery until sufficient data to:
  - (i) Evaluate the distribution, abundance and demography of the target species, leading to an estimate of the fishery’s potential yield;
  - (ii) Review the fishery’s potential impacts on dependent and related species;
  - (iii) Allow the Scientific Committee to formulate and provide advice to the Commission on appropriate harvest catch levels, as well as effort levels and fishing gear, where appropriate.”



# CCAMLR: Exploratory Fisheries

- Similar process to new fisheries
- Commission establishes a precautionary limit for catches
- CMs elaborated for fishery on an annual basis
- Contingent upon non-IUU record
- Strict requirements on gear use and submission of data
- Must also be compliant with CM22-06 on bottom fishing
- Exacting criteria at national level for the endorsement of NEF applications: e.g. Australia, February 2015 – preference in favour of Australian crewing, vessel-ownership and landing; concerns as to negotiating position and credibility within CCAMLR



# Exploratory toothfish fisheries

- EFs currently most prevalent for toothfish (seven out of existing 13 toothfish fisheries); largely established as EFs in 1999/2000
- Three originally designated as “new” but adjusted due to volume of prior IUU fishing
- Process generally reveals that precautionary limits have been reduced significantly from earlier quotas; now most of the fisheries involve a small number of long-line vessels
- Generally strong level of compliance; some (non-egregious) breaches of quotas in previous years



# Exploratory toothfish fisheries

- Most fisheries at or significantly below the quota
- Concerns over IUU remain in some EFs, although data is limited and methodological base shifted in 2010
- EFs are generating data on associated species and population patterns
- EF rules have led to adjustments, particularly marked in Division 58.4.4 where fishing techniques altered so as to reduce by-catches



# NEAFC

- New and exploratory fisheries primarily addressed within the framework of bottom fishing and VMEs
- Bottom fishing arrangements adjusted from 1 January 2009 onwards, regulating “existing” and “new” bottom fisheries
- NEF now addressed primarily through Recommendation 19:2004, Protection of VMEs in the NEAFC Regulatory Area (as amended by Recommendation 9:2015)
- Exploratory bottom fishing defined as: “all commercial bottom fishing **activities outside area closures and existing bottom fishing areas**, or if there are **significant changes to the conduct and technology** of bottom fishing activities within existing bottom fishing areas”
- Previous definition of “new” bottom fishing excised in 2015



# NEAFC Practice

- List of existing fishing areas; certain areas also closed to bottom fishing
- Exploratory bottom fishing addressed in Articles 6 & 7 to the Recommendation
- Onus on proposing party to gather data to present to the Commission
- Notice of Intent required; reviewed by parties and PECMAS; decision on approval
- Observer system and reporting requirements
- Procedure to authorise fishing and re-designate as “existing bottom fishing areas”



# SEAFO

- Adopted a very similar approach to NEAFC
- CM 17/09 on bottom trawling introduced as an interim conservation measure to address A/Res/61/105 in relation to VMEs and bottom fishing
- Defined “new bottom fishing areas” as all areas within the Regulatory Area not defined as “existing bottom fishing areas”; these activities termed “exploratory fisheries” – N&EF therefore used relatively interchangeably
- CM 29/14 on bottom fishing activities and vulnerable marine ecosystems in the SEAFO Convention Area is the most recent policy pronouncement on N&EF; adopted 8 December 2014, entered into force 9 February 2015



# SEAFO Practice

- Exploratory bottom fishing defined slightly differently to NEAFC: “all commercial bottom fishing activities outside area closures and existing bottom fishing areas, or fisheries within existing bottom fishing areas when a new fishing method and/or strategies are attempted to be used”; no criterion of “significant changes”.
- Existing bottom fishing ascertained from baseline of fishing data 1987-2011
- Arts 6 & 7 practically verbatim to NEAFC policy: exploratory bottom fishing only to commence after consideration by Scientific Committee and approval by the Commission
- Preference given on identical basis to NEAFC; observers required, data to be distributed





# SEAFO Practice

- Slightly different criteria for conversion of an EF into an “existing” BF area: “the Commission may decide to authorise new bottom fishing activities based upon the results of exploratory bottom fishing”; time scale for data location-dependent
- Rules on opening of new BF areas provided in Annex 5: exploratory data needed within a specific area that nonetheless does not reach the VME threshold: two years of data within a 5 year period for areas adjacent to existing fisheries and three years within a five year period for areas not adjacent to existing fisheries



# SPRFMO

- Comprehensive provision on NEF; Article 22
- 1. A fishery that has not been subject to fishing or has **not been subject to fishing with a particular gear type or technique for ten years** or more shall be opened as a fishery or opened to fishing with such gear type or technique only when the Commission has adopted **cautious preliminary conservation and management measures in respect of that fishery**, and, as appropriate, non-target and associated or dependent species, and appropriate measures to protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities



- 2. Such preliminary conservation and management measures, which may include requirements regarding notification of intention to fish, the establishment of a development plan, mitigation measures to prevent adverse impacts on marine ecosystems, use of particular fishing gear, the presence of observers, the collection of data, and the conduct of research or exploratory fishing, shall be consistent with the objective and the conservation and management principles and approaches of this Convention. **The measures shall ensure that the new fishery resource is developed on a precautionary and gradual basis until sufficient information is acquired to enable the Commission to adopt appropriately detailed conservation and management measures.**



3. The Commission may, from time to time, adopt **standard minimum conservation and management measures** that are to apply in respect of **some or all new fisheries** prior to the commencement of fishing for such new fisheries



# SPRFMO Practice

- Most pertinent Conservation and Management Measure is CMM 2.03 Management of Bottom Fishing in the SPRFMO Convention Area
- Participants are to establish their bottom fishing footprint (i.e. “a map of the spatial extent and distribution of historical bottom fishing in the Convention Area of all vessels flagged to a particular Member or CNCP over the period 1 January 2002 to 31 December 2006”) and restrict fishing activities to within their footprint
- Application process to the Commission to undertake bottom fishing outside this footprint (or if they have no footprint)



# SPRFMO Practice

- Application must “take into account the results of any public consultation conducted by that Member or Cooperating Non-Contracting Party”
- SC assessment “on the basis of the best available scientific information” impacts for VMEs, mitigation measures and cumulative impacts
- Provides recommendations to the Commission, which takes a final decision
- This process is “in addition to the requirements in any other measures adopted under Article 22 of the Convention with respect to new and exploratory fisheries”



# Implementation of SPRFMO Standards

- 2011: Commission introduced Bottom Fishery Impact Assessment Standard
- Participants are required to prepare a new bottom fishery impact assessment if a substantial change in the fishery has occurred
- Includes “changes in intended fishing areas, management measures or the use of new gear”
- Assessments somewhat variable; NZ assessment: particular attention on risk of gear loss



# NAFO

- New NAFO Convention 2007 addresses “fishing for scientific purposes”
- Defines a fishing vessel as “any vessel that is or has been engaged in fishing activities, and includes fish processing vessels and vessels engaged in transshipment or any other activity in preparation for or related to fishing activities, **or in experimental or exploratory fishing activities**”:  
Article 3(h)
- Articles 18-20 NAFO Conservation Measures for 2015 includes assessment process for exploratory fisheries





# NPFC

- Art 3(h) – General principles to be taken individually or collectively: “ensuring that any expansion of fishing effort, development of **new or exploratory fisheries**, or change in the gear used for existing fisheries, does not proceed without **prior assessment of the impacts of those fishing activities on the long-term sustainability of fisheries resources** and a determination that those activities would **not have significant adverse impacts on vulnerable marine ecosystems**, or ensuring that those activities are **managed** to prevent those impacts or are **not authorized to proceed**”
- Art 7 – Commission functions: establish participatory rights by consensus (including NEF) and establish conditions for any experimental, scientific, and exploratory fishing”



# Conclusions and Trends

- No global definition of NEF; regional bodies have adopted their own definitions to suit particular regulatory conditions
- CCAMLR the most advanced example of practice; clear definitions of “new” and “exploratory” fisheries
- EF practice and data generation has led to adjustments in catches and gear; very limited data on recent IUU activities
- Other RFMOs established procedures for development of NEF
- Definitions somewhat interchangeable; viewed in comparison to baseline data of existing fishing effort
- Some ambiguities in ascertaining threshold for NEF
- Strong role envisaged for precautionary oversight



- Emphasis on development of assessment plans – akin to EIA/SEA processes
- Strong emphasis on prior approval and science-based management
- Procedural elements strong in principle – but will require clear steering from scientific bodies and a strong stance on sub-standard documentation
- CCAMLR experience suggests NEF will be relatively long-term in duration before transition to managed fisheries
- Few tangible examples of transitional practice; questions remain as to thresholds and applicable measures



# Thank you!!

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