



# Application of the PA to reduce ecosystem impacts and linkages to the implementation of EAFM

By Tony Thompson

Deep-sea fisheries project



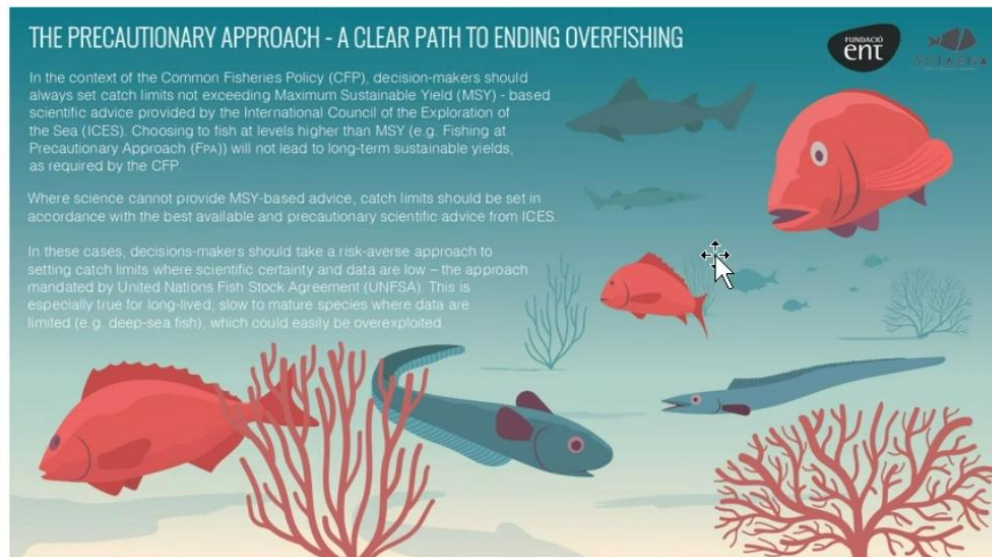
# PA is more than fish stocks – close links with EAFM

This picture on PA is linked to the European Common Fisheries Policy

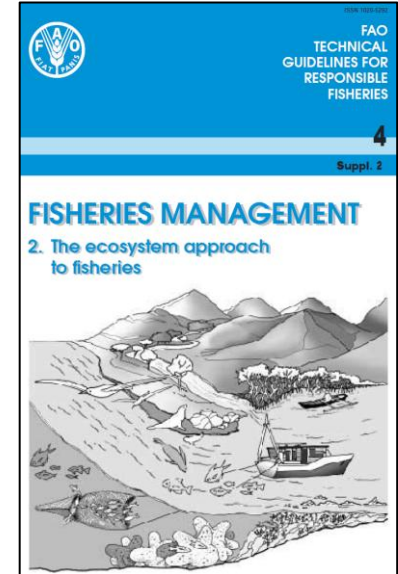
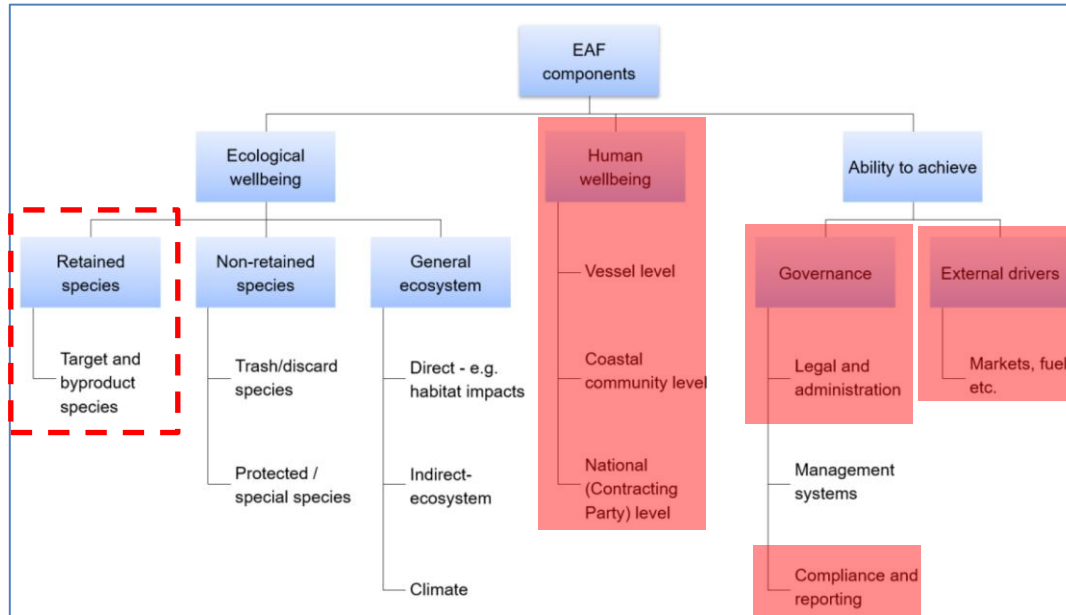
The text is linked to fish stocks ...

The picture includes vulnerable species ...

Overfishing affects more than just the fish stocks ...



# What is EAFM?



As modified by Fletcher (2020)

# What is PA? - the NPFC Convention

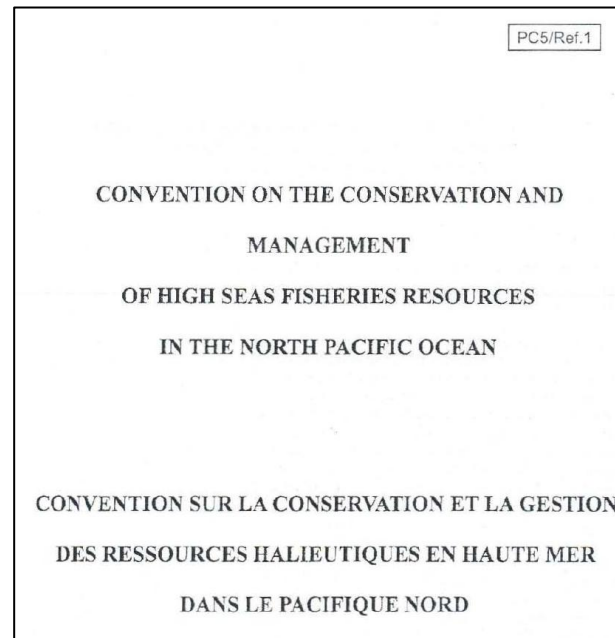
## *Article 1 Use of Terms*

(I) "Precautionary approach" means the precautionary approach as specified in Article 6 of the 1995 Agreement;

## *Article 3 General Principles*

In giving effect to the objective of this Convention, the following actions shall be taken individually or collectively as appropriate:

(c) adopting and implementing measures in accordance with the precautionary approach and an ecosystem approach to fisheries, and in accordance with the relevant rules of international law, in particular as reflected in the 1982 Convention, the 1995 Agreement and other relevant international instruments;



# UNFSA (1995 Agreement) Article 6

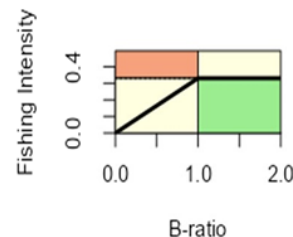
Application of the precautionary approach to:

- protect and preserve the marine environment, account for impacts of fishing activities on non-target and associated or dependent species, and collect relevant data (1, 3c,d)
- share data and be more cautious when information is uncertain, unreliable or inadequate. Improve techniques for dealing with risk and uncertainty (3a)
- consider levels and distribution of fishing mortality(3c)
- where the status ... non-target or associated or dependent species is of concern, ... to enhanced monitoring (5)
- for new or exploratory fisheries, ... adopt adaptive and emergency CMMs (6)
- absence of information shall not be used as a reason for postponing or failing to take CMMs (2)



# What does Article 6 and Annex II say about reference points?

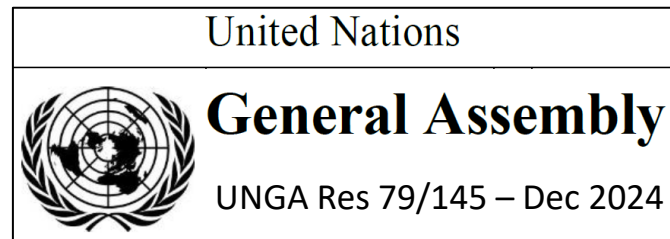
- Reference points are used to only refer to target stocks (mostly, Rishi's talk)
- Are reference points relevant to “other” species?
- *Where the status of ... non-target or associated or dependent species is of concern (5)*
- Implies initial and current population estimates
- Need a threshold value to start a management response



# The UNGA annual “fish” resolutions?

PA used in conservation and management actions on:

- long-term sustainability of deep-sea fish stocks and non-target species and rebuilding
- by-catch, pollution and overfishing, and habitats
- sharks
- science-policy interface and collaboration
- prevent SAI on VMEs and ETP species
- dependent species
- Undertake impact assessments





# What can NPFC SC do to support PA?

Reference points and long-term management plans for target stocks (Rishi's talk)

For other aspects of PA:

- Spatial monitor of pelagic and demersal fishery (by gear, catch, effort)
- Monitor “interactions” - efficient use of observers, compliance vs scientific
- In advice, identify uncertain with error bars and/or text descriptions
- Undertake risk analyses for possible species interactions
- Perform environmental impact assessments
- Improve data sharing and transparency



# What can NPFC Commission do to support SC's work on PA?

Adopt long-term management plans and target reference points for fisheries (Rishi's talk)

- support SC work with measures (especially data collection)
- review EAF/PA CMM issues in compliance committees
- make requests for SC advice on the various EAF/PA topics
- adopt a cautious approach to deal with uncertainty
- clarify who deals with uncertainty
- request and review environmental impact assessments from States
- develop mechanisms for cooperation among sectors

# Example of PA from 2006

Overlap with ecological components



Implementation of the Adaptive Management for

Annex 3  
ing System (VMS) Data

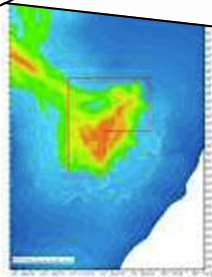
**(u) Record of the numbers by species of all marine mammals, seabirds or reptiles caught.**

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# Will climate change affect PA?

CC effect	Mitigation
Affect fish distributions	Spatial monitoring of fishery (VMS)
Liley reduce productivity (fish yields) in most regions	Improve stock management to ensure biomass is c.Bmsy
Increase recruitment variability	More variable catches between years
Affect associated (ETP) species distributions	Monitor spp distributions (VMEs, seabirds, etc)
Open up new fishing areas	Adaptive management. Costs for industry.
Change interactions	Monitoring of interactions. Regular EIA, etc.
SC advice	More uncertain
Increase resource demands (humans, science, difficult decisions)	Increased Commission and science workloads
Require more adaptive management and emergency measures	Increased Commission workload



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The COMMON OCEANS DEEP-SEA FISHERIES PROJECT brings together a global partnership dedicated to advance responsible deep-sea fisheries management and biodiversity conservation in areas beyond national jurisdiction (ABNJ). Funded by the Global Environment Facility (GEF) and led by the United Nations Food and Agriculture Organisation (FAO), it works in collaboration with the seven deep-sea RFMOs, private sector, national and international organizations.



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