Food and Agriculture Organization of the United Nations

> Understanding the role of fisheries management in delivering Target 3 of the GBF: A biodiversity outcome framework

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# 30x30 and OECMs





THE BIODIVERSITY PLAN For Life on Earth

### Target 3 (the short version)

"...by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas...are effectively conserved and managed through... systems of protected areas and other effective area-based conservation measures..."

### **OECM** Definition

"a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained longterm outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values"



# Where do we (FAO) fit in?

34<sup>th</sup> COFI requested that **FAO produce and disseminate practical** guidelines to support Members in OECM identification and implementation



# Criterion C & the need for supplemental guidance



Achieves sustained and effective contribution to in situ conservation of biodiversity

- 1. What does it mean to make an effective contribution to in situ conservation of biodiversity?
- 2. What kinds of biodiversity outcomes might we expect to see as a result of area-based fisheries management?

# Criterion C & the need for supplemental guidance

#### Important Biodiversity Attributes (CBD Decision 14/8)

- rare, threatened or endangered species and ecosystems
- ecosystems underrepresented in protected area networks
- high level of ecological integrity or intactness
- significant populations of rangerestricted species or ecosystems
- important species aggregations, e.g., spawning, breeding, feeding areas
- important sites for ecological connectivity

## Potential biodiversity outcomes from area-based fisheries management

- Sustained increases in productivity
- Maintenance of threatened populations or endangered species
- Ecosystem protection, measured by changes to:
  - Habitat diversity
  - Species richness
  - Delivery of ecosystem services

Gathering information on biodiversity can be challenging...

## Biodiversity Outcomes Framework overview

**Purpose:** To provide a launch point for determining biodiversity outcomes in area-based fisheries management

<u>Conservation</u> How looking at biodiversity outcomes for fisheries compares to other sectors

#### <u>Fisheries</u>

How to get started in thinking about what ABFM is doing for biodiversity



## **Biodiversity Outcomes Framework overview**

#### Part 1: Framework

#### Part 2: Case study examples



## Part 1: Overarching framework

- Supports defining biodiversity features
- Notes methods and metrics available to document biodiversity changes
- Suggests a simplified approach for gathering evidence of biodiversity outcomes
- Links to typologies of ABFMs and marine ecosystems



TIME: Is the ABMT ACTIVITIES: SPACE: Is the ABMT located in Dimensions vear-round, seasonal, Is there a full the High Seas and/or an EEZ? or rotational? Is it Does it impact fishing grounds or partial Constrained STEP 1: permanent or or broader areas? Are ABMT closure to boundaries static or dynamic? DESCRIBE temporary? fishing? ABMT What are key What is What is the Establishment ABMT threats to the the overall health location and date and ecosystem Context of the ecosystem size of the jurisdiction(s)? within the area? within the area? area? ..... ............................. HABITAT: Does the area COMMUNITY SPECIES: Does the contain rare/threatened/ COMPOSITION: STEP 2: Important area contain endangered habitats; Does the area ESSENTIAL rare/threatened/ habitats important for **Biodiversity** have high endangered species; OCEAN ecological representativity ecological Attributes species at vulnerable or connectivity; habitats integrity in terms VARIABLES life stages, etc.? important for species life of species stages or migrations, etc.? composition? ABMT Does the ABMT Does the ABMT influence Does the ABMT species abundance or influence Influence influence distribution or population species genetic species traits? on Species composition? structure by age or size class? ABMT Does the ABMT influence Does the ABMT influence larger STEP 3: habitat structure, ecosystem ecosystem functions, including Influence on **ESSENTIAL** connectivity/fragmentation, primary productivity, secondary Habitat BIODIVERSITY composition. or functional productivity, nutrient retention, or disturbance regime? VARIABLES type? ABMT Influence on Does the ABMT Does the ABMT influence taxonomic influence species Community diversity of species interactions within Composition present in the area? the area? What relevant data Are local or traditional knowledge holders and indicators could available to speak to Step 2 and Step 3? What Forms of be used to assess is their confidence in a) indicators used by Evidence outcomes of fisheries managers; b) their knowledge of STEP 4: variables identified ecosystem health and the ABMT's influence? in Step 3? **EVIDENCING** OUTCOMES What capacity and Based on evidence available, Approaches to resources are available to what methods are feasible to Assessment gather data and engage assess outcomes of variables with knowledge holders? identified in Step 3? Refer to Biodiversity Methods & Indicators Supplement

Framework components for outcome assessment

## Part 2: Real world examples in fisheries

Putting it into context...



#### 469 unique case studies



## Examples of Positive Biodiversity Outcomes

Ecosystem Types	Area-based Management Tool Type	Biodiversity Outcome Example	Biodiversity Outcome Class
	Rotational Closure	Higher biomass of select functional fish groups (i.e., grazers, scrapers/excavators) & increase in overall coral cover (Cinner et al., 2019	Species Diversity & Richness
	Locally managed marine area & Closed season	Improved ecological condition of the coastal area (Egli et al., 2010)	Ecosystem & Food Webs
	Locally managed marine area	"The community reported other positive effects including improvements in the seagrass habitat and the return of species that had disappeared such as sea hares and stingrays." (Cakacaka, A., 2008)	Species Diversity & Richness and Habitats

## Framework features & Next steps

- Goal of FAO's Framework: help fisheries managers evaluate OECM Criterion C
- Outlines simple approaches for identifying biodiversity attributes, predicting how fisheries ABMTs may influence them, and gathering evidence

 Literature review results offer insight into which biodiversity outcomes can be expected from different fisheries ABMTs, across ecosystem types





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Thank you! For more information, contact: <u>amber.himescornell@fao.org</u>