



# Fisheries sustainability and impact mitigation: Challenges and opportunities in Aichi Targets 6 and 11

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Side-event on **What is expected and what can be delivered for biodiversity in fisheries**. Organized by FAO, CBD and IUCN-CEM-FEG for COFI, FAO, Rome, 13/07/2018





# Outline



1. Considerations on Target 6
2. Considerations on Target 11 and OECMs
3. Challenges and opportunity



## TARGET 6

*All fish and invertebrate stocks and aquatic plants are **managed and harvested sustainably, legally and applying ecosystem-based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits***

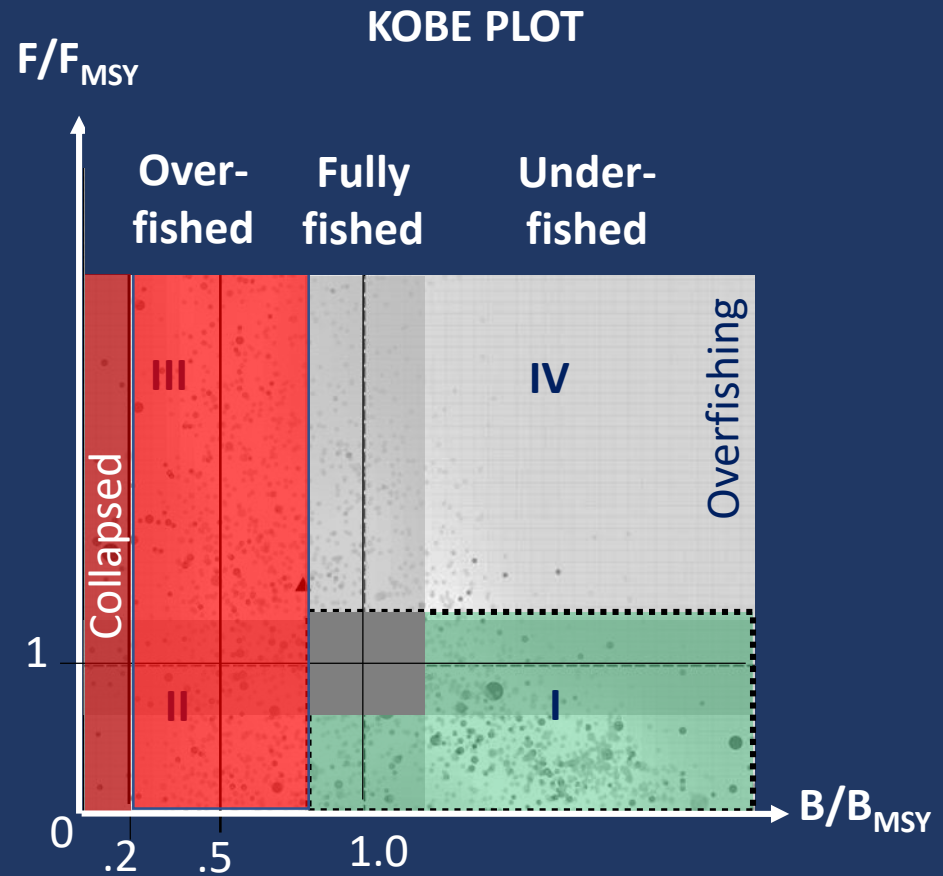
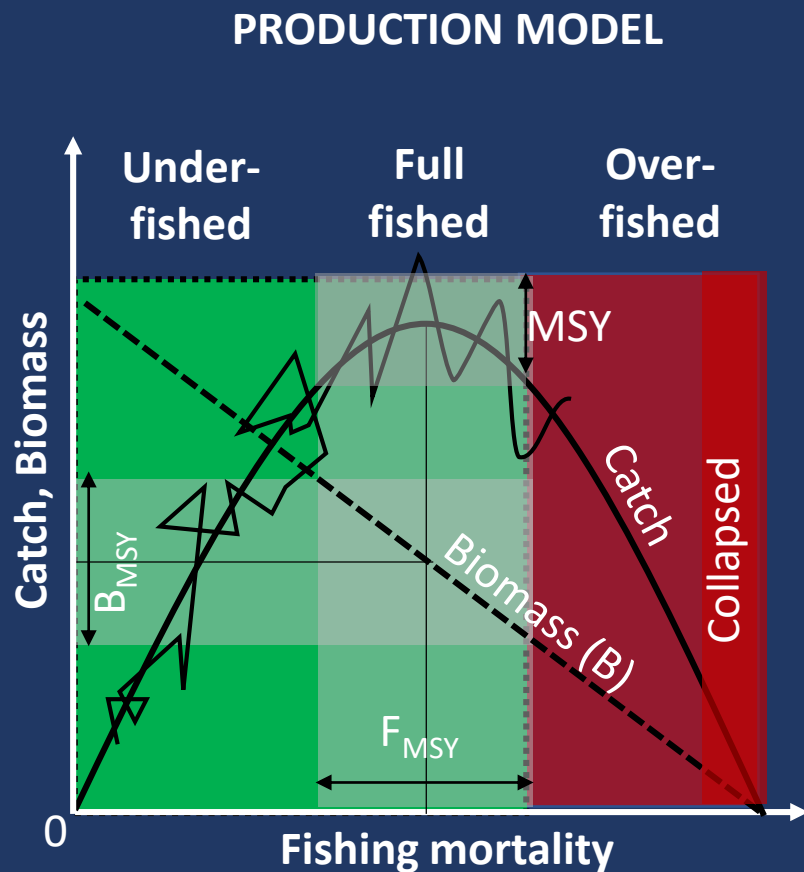
# T6 Elements, actions and outcomes

Target 6 Elements		Actions			Final outcomes
		Laws	Policies	Plans	
A	All target stocks	Fishery Act; Adoption of international agreements (UNFSA, PSMA); Rebuilding and conservation laws	Rebuilding & protection goals & strategies; Capacity-building;	Approach; Measures; Roles; MCS Deadlines; Benchmarks; Evaluation	Sustainably harvested Legally harvested Overfishing is avoided
B	Depleted target and non-target species				Recovery plans & measures in place for depleted stocks; Non-target species not being depleted or else have recovery plans
C	Threatened species; Vulnerable ecosystems				No Significant Adverse Impact (SAIs)
D	Whole ecosystems				Within safe ecological limits (SEs)

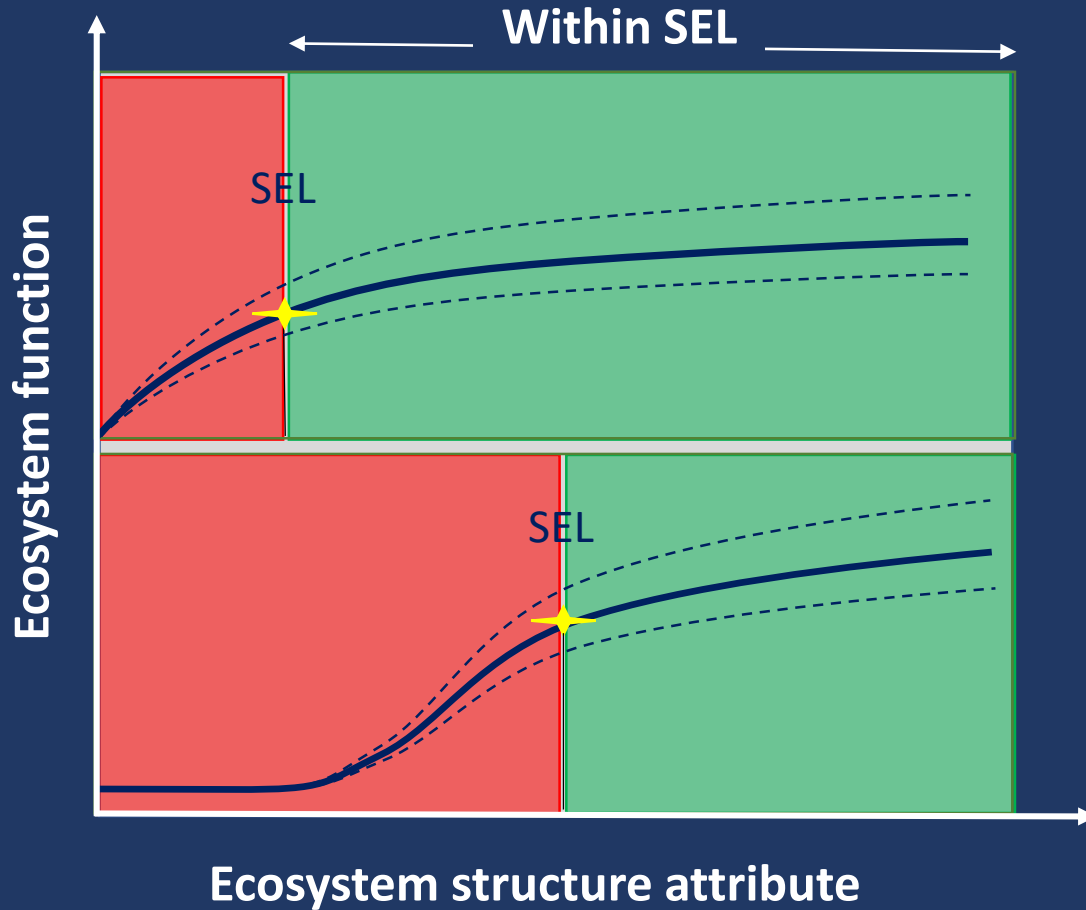
# State of stocks and T6 Elements

SPECIES/STOCKS								ECOSYSTEM	
Categories	Target				Target/non-target		Threatened Protected spp	VMEs	Other Habitats
	Under fished	Developing	Fully fished	Over-fished	Depleted	Collapsed			
Metric (B/B <sub>MSY</sub> )	>2.0	2.0-1.2	1.2-0.8	0.8-0.5	0.5-0.2 <Blim	< 0.2	Jurisdictional standard	Density of vulnerable spp.	Structure & function
Goal	Maintain at target level			Rebuild to target level			No SAIs	Protect/Maintain/restore	
	Within safe Ecological Limits (SELs)								
Main measures	Conventional controls of fishing mortality level and distribution (fishing pattern)			More stringent reduction of fishing pressure and protection of recruitment		Allowable harm estimates. Habitat protection. Fishing moratoria and stock enhancement measures		Gear restrictions Move-on rules. Protected areas	Whole tool box
	Management plan			Rebuilding plans (RP)		Mandatory plans?		Rest./Recov. ?	
Target 6 Elements	6A -sustainably harvested			6B-Depleted			6C-Threatened spp. & Vulnerable ecosystems		
	6D: Safe Ecological Limits (SELs)								

# Target species: 6A, 6B, 6C



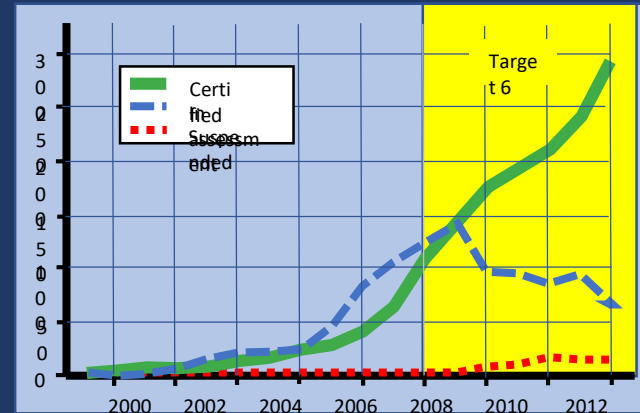
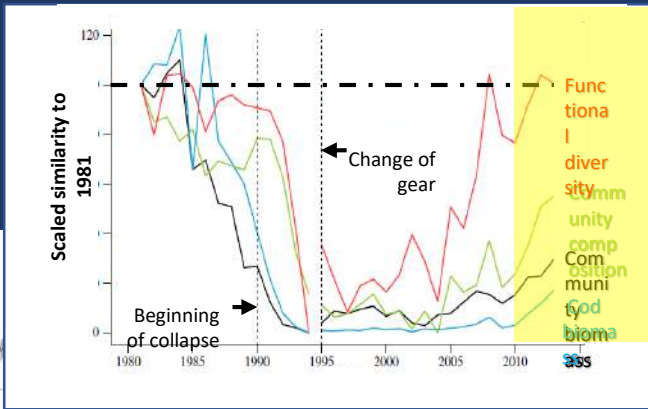
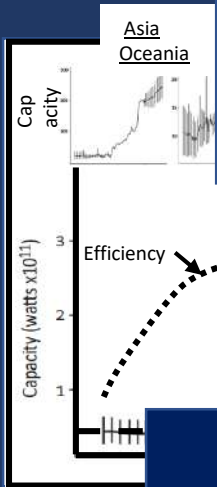
# Ecosystems -6D



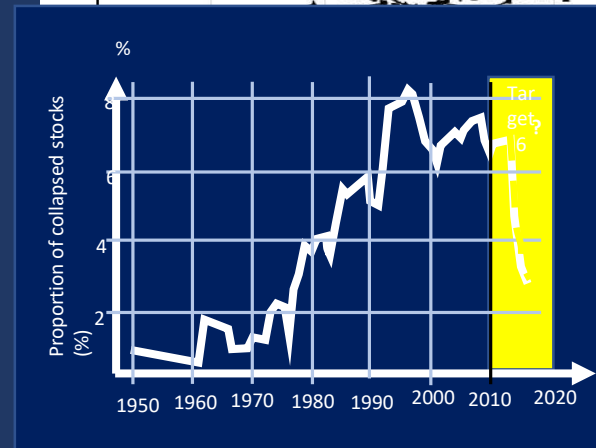
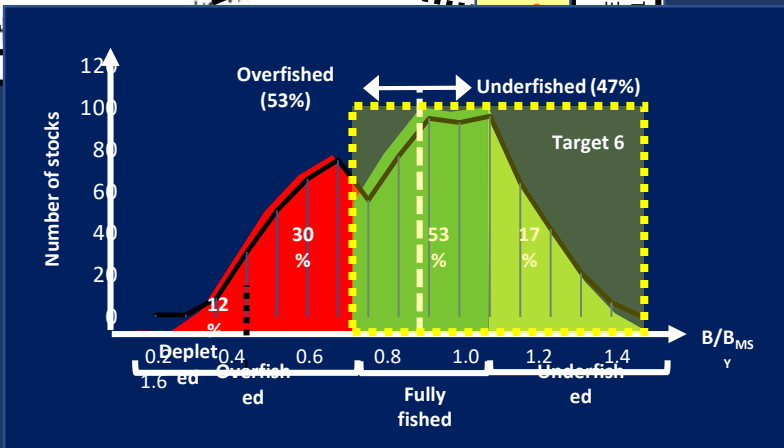
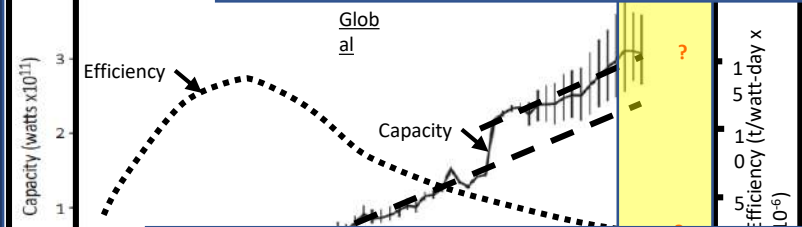
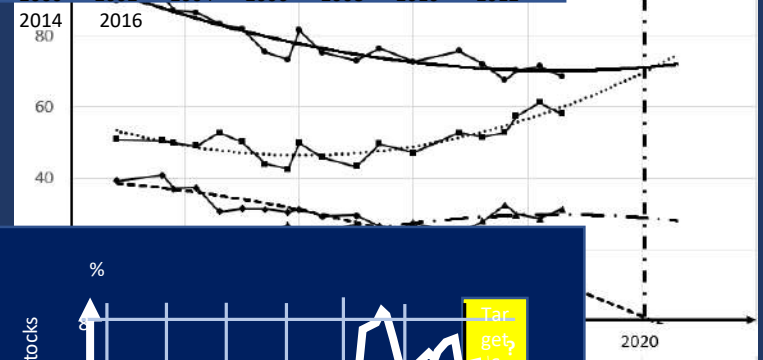
The relation between structure and function may help identify safe ecological limits (SEL)

No global agreements exist yet on this level

# Status & Trends



$30.46x - 20$   $R^2 = 0.8706$   
 $103346$   $R^2 = 0.713$   
 $-59354$   $R^2 = 0.8708$   
 $-43892$   $R^2 = 0.9495$





# Ecosystems





# TARGET 11 and OECMs

## Biodiversity Outcomes of Spatial Fisheries Measures

TARGET 11: *At least ... 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures [OECMs], and integrated into the wider landscapes and seascapes."*

# OECM definition

“A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term 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”

CBD/SBSTTA/22/L.2 (2018)

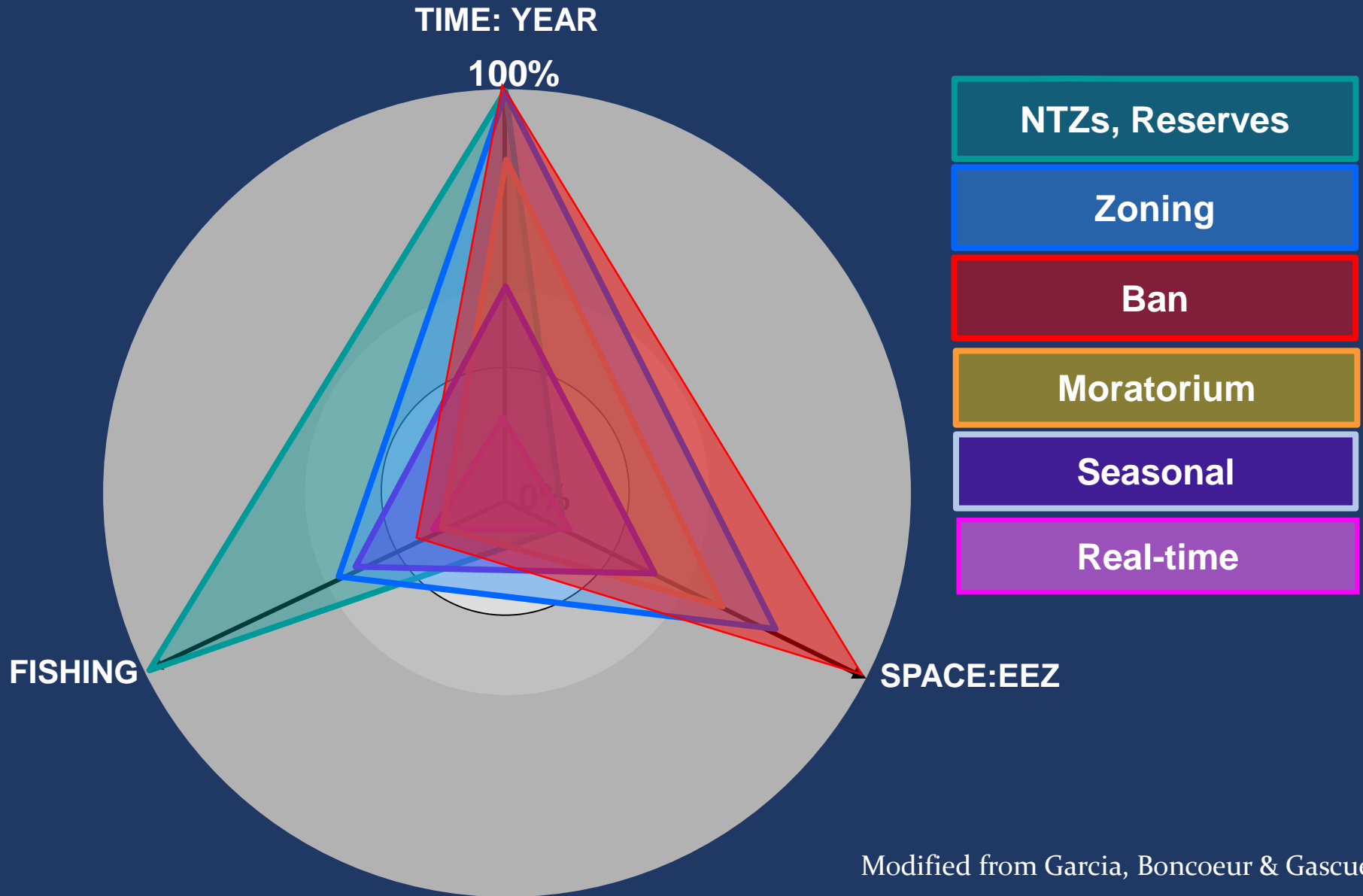
In a nutshell, an area-based management measure that generates sufficient conservation co-benefits to be counted under Target 11

# Premises

- The inclusion of OECMs in Target 11 in 2010 reflected Parties' will to have areas additional to MPAs included in the Target 11 accounting.
- Area-based fishery management measures (ABFMs) that only benefit the target species of a fishery are not consistent with the intent of OECMs.



# Area-based Fishery Management Measures



# OECMs Guiding Principles

## OECM:

- Are applied in a flexible way and on a case-by-case basis
- Maintain/generate biodiversity value
- Provide in-situ conservation over the long-term
- Deliver biodiversity outcomes that are comparable/ complementary to PAs
- Are consistent with the ecosystem and precautionary approaches;
- Deliver greater representativeness and connectivity in PAs systems;
- Require the free, prior, and informed consent of local communities
- Promote, recognize, the roles of different governance systems and actors
- Provide a range of incentives to ensure effectiveness
- Use best scientific and other information

Their definition and criteria is applicable across all ecosystems;

# General criteria for Identification of OECMs

<b>Not a protected area</b>	<ul style="list-style-type: none"><li>• Not currently recognized/reported as a protected area</li></ul>
<b>Geographically defined</b>	<ul style="list-style-type: none"><li>• Including size, area, and boundaries</li></ul>
<b>Legitimately governed</b>	<ul style="list-style-type: none"><li>• Appropriate for achieving in situ conservation in the area</li><li>• Governance by indigenous peoples and local communities</li><li>• Reflects equity considerations</li><li>• By one or more collaborating authorities</li></ul>
<b>Managed</b>	<ul style="list-style-type: none"><li>• Relevant and responsible authorities identified &amp; involved</li><li>• Management system contributes to in situ conservation</li><li>• Consistent with the ecosystem approach</li></ul>
<b>Sustained over long-term</b>	<ul style="list-style-type: none"><li>• Continuing of governance and management</li><li>• “Long-term” outcomes</li></ul>

# General criteria for Identification of OECMs -2

<b>Effective</b>	<ul style="list-style-type: none"><li>• Achieves or aim to achieve, positive and sustained conservation</li><li>• Threats are well understood and addressed effectively.</li><li>• Mechanisms recognize and respond to new threats.</li><li>• Integrate management in and out of the OECM where possible.</li></ul>
<b>Information and monitoring</b>	<ul style="list-style-type: none"><li>• Develop baselines for biodiversity and other relevant values.</li><li>• Establish a monitoring system</li><li>• Assess governance/management performance including on equity</li></ul>
<b>Ecosystem services</b>	<ul style="list-style-type: none"><li>• Are supported, particularly those of importance to indigenous peoples and local communities</li><li>• Account for interactions/trade-offs among ecosystem service</li></ul>
<b>Cultural and spiritual values</b>	<ul style="list-style-type: none"><li>• Are identified, respected and upheld</li><li>• Knowledge, practices and institutions are respected and upheld</li></ul>



# OECMs effectiveness criteria

## OECMs should be expected to:

1. Maintain the healthy state of sustainably used species
2. Increase abundance, biomass, structure and function of depleted species and disturbed species communities
3. Protect and allows recovery of habitats and biogenic structures critical to the target species while also protecting the habitats critical for non-target threatened species
4. Contribute to the conservation of ecosystems and the services they provide
5. Helps containing/reducing fishing pressure on stocks, species and habitats.

These principles provide an obvious connection between Target 11 and Target 6

# OECM description elements

Proposals of OECMs should include, inter alia:

1. Location & description of the area (extent, priority species & habitats,)
2. Coverage provided by the measure, relative to the total relevant area
3. Spatial distribution and movements of priority species
4. Critical habitats and vulnerable species
5. Objectives & expected outcomes for the fisheries and conservation with their rationale
6. The non-fishery threats on the area, if any, and...
7. A management plan, containing (i) Objectives; (ii) Measures adopted to counter/mitigate major threats (iii) The expected outcomes

# Other considerations

1. **Integration in EAF?**
2. **Best available knowledge?**
3. **Integration of fisheries management and biodiversity conservation**
4. **Degree of protection.** Is the intended protection full or partial?
5. **Precautionary approach?**
6. **Stakeholder's buy in?**
7. **Compatibility** of management measures in and around the OECM



# CHALLENGES & OPPORTUNITIES



# Challenges in Target 6

- **Likely performance**: For 2020, comprehensive reports will probably be produced for target and non-target species even if the consensus may not be always total. Reporting in Element 6D (safe ecological limits) will necessarily be limited and **should be a central element for the post 2020 efforts.**
- **Time lags**: There tends to be a delay of 3 years between observations (facts) and formal reporting or publishing on trends. The Final status in 2020 will not be known completely until at least 2023. Extrapolations may be informative to some extent if used with due caution. **The timely reporting of States to CBD and FAO will therefore be essential, even if qualitative.**
- **Causality** between actions and outcomes is hard to establish in complex social-ecological systems. Outcomes may result to some extent from actions taken way before 2010. **Nonetheless, when States will report on actions taken to implement a Target 6 Element, the relationship should be at least very plausible.**



# Challenges in Target 6 -2

- **Interpretation**: The meaning of indicators' levels and changes may not always be straightforward (e.g. low precision; multiple drivers). **Comprehensive guidance on such indicators, their construction and interpretation would be useful.**
- **Assessment capacityic context**: SIDS and LDCs are likely to need capacity-building to face the task of comprehensive reporting on Target 6. **Targeted bilateral cooperation and new pathways for financing would help.**
- **Institutional collaboration**: Comprehensive and coherent assessment will require intense cooperation among national and international institutions **particularly between environmental and sectoral agencies (e.g. FAO, IUCN and CBD).**

Most important> take immediate action to rebuild fishery resources and mitigate environmental impact, demonstrating political will by 2020



# Challenges in OECMs

- Contribute to the national effort towards Target 11 and conservation
- Enhance improved efforts in impact reduction, mitigation and restoration in fisheries while securing food security
- Growing pressure to maintain and restore ecosystem structure and function
- Identify by 2020 the ABFMs being used with their characteristics and identify OECMs among them using criteria and principles developed at SBSTTA 22 (to be endorsed at COP in November)
- Develop understanding of OECMs and buy-in by the fishery sector



# Opportunities

- To correct the poor public image that fisheries developed in the last 2 decades
- To show the contribution of fisheries to conservation, transparently and scientifically
- To improve the dialogue between fisheries and biodiversity conservation developing a common understanding and reconcile fisheries productivity, food security and conservation;
- Potential integration of OECMs in MSC ecolabelling criteria
- Possibility to integrate the management of many fisheries in an ecosystem around a common OECM (synergies)



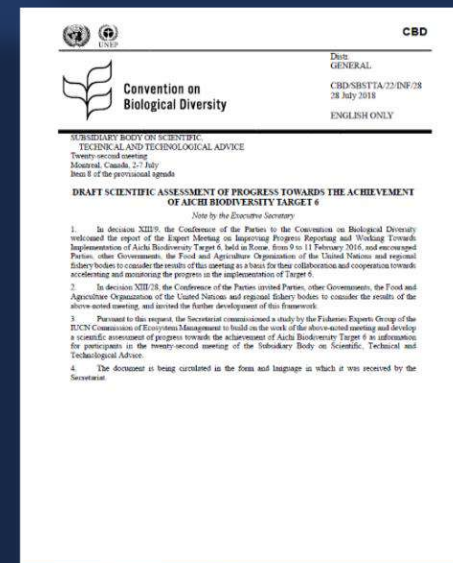
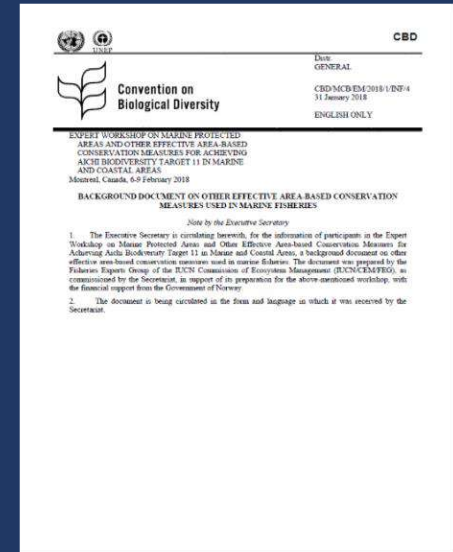
# THANK YOU

## BACKGROUND DOCUMENT ON OTHER EFFECTIVE AREA/BASED CONSERVATION MEASURES USED IN MARINE FISHERIES CBD/MCB/EM/2018/1/INF/4

<https://www.cbd.int/doc/c/0689/522e/7f94ced371fa41aeee6745e5/mcb-em-2018-01-inf-04-en.pdf>

## DRAFT SCIENTIFIC ASSESSMENT OF PROGRESS TOWARDS THE ACHIEVEMENT OF AICHI BIODIVERSITY TARGET 6 CBD/SBSTTA/22/INF/28

<https://www.cbd.int/doc/c/ab26/e218/e7391fd52507247d88f73e0f/sbstta-22-inf-28-en.pdf>



# Evidence available

The literature review undertaken by the FEG of IUCN indicates that:

- ABFMs can effectively benefit the species intended to benefit (e.g. bycatch and habitat avoidance measures);
- Very little reporting on the broad biodiversity consequences of almost ANY spatial management measures (fisheries or otherwise);
- Most reporting on broad biodiversity issues comes from modelling studies [not field studies] and the results are largely determined the model assumptions.

**More dedicated work is needed**