# THE ECOSYSTEM APPROACH TO SMALL SCALE FISHERIES IN SOUTH AMERICA:

where are we standing and where are we going?



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#### EAF IN SOUTH AMERICA

Few SSFs explicitly implemented an EAF

Many successful fisheries have chased the fundamental steps of EAF development and implementation



#### LONG-TERM CASE STUDIES → 4 COUNTRIES

- Common paths:
- 1. Bottom-up approaches
- 2. Site-specific management
- 3. Consensus building
- Reasons for holistic approaches
- Lessons learned



### **CASE STUDIES: URUGUAY**

Uruguayan SSFs were overexploited and neglected by the government

2005 → high-level policy goals → EAF supported by FAO

Co-management as formal governance mode

2013→ new fishery legislation provides the basis for an EAF in SSFs

Selection of pilot sites









## CASE STUDIES: URUGUAY, THE YELLOW CLAM FISHERY

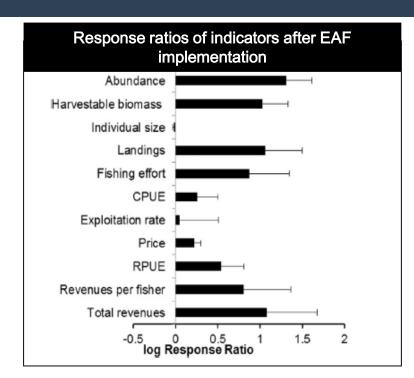
# EAF/ Co-M implementation

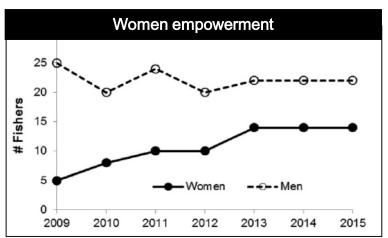
#### Goals:

- Sustainable exploitation
- Empower fishing communities
- Develop new market opportunities

#### Results:

- •Positive response in several in fighter in several in
- Increase in women participation







### **CASE STUDIES: EXTRACTIVE RESERVES OF BRAZIL**

Extractive reserves (RESEX) → areas allocated to local communities for exploitation and conservation of renewable resources

### Goals of the RESEX:

- Biodiversity conservation
- Improving livelihoods
- Integrate resource users in decision-making

Formal steps of a RESEX → analogous of EAF implementation

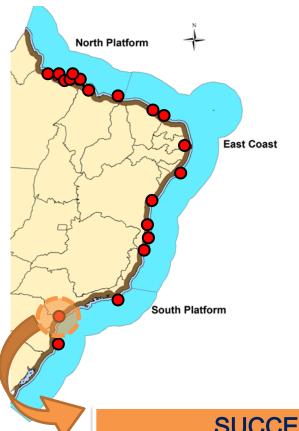
**Governance mode** → Co-management







# **CASE STUDIES: MARINE EXTRACTIVE RESERVES OF BRAZIL**



#### 22 Marine Extractive Reserves

# Mangroves and estuarine areas

Assessment of 20 RESEX

- Unsatisfactory results
- Many RESEX lack management plans
- Obstacle to consolidate EAF
- Lack of government support to fulfill objectives

### **SUCCESS:** RESEX OF MANDIRA, COOPEROSTRA

Oyster production increased Incomes increased by removing intermediaries Appreciation of artisanal production enhanced encouraging tourism

#### **CASE STUDIES: CHILEAN GOVERNANCE TRANSFORMATIONS**

# **Transformations in governance** of coastal resources

- (i) recognition of stock collapse
- (ii) social processes (fishers + scientists)

**1991**→ the new fishery legislation reformed the fishing sector in Chile

# Several novelties including:

- Allocation of TURFs
- Co-management

Rebuilding Chilean Fisheries Through Smart Management

# Rebuilding Chilean Fisheries Through Smart Management

Territorial Use Rights in Fisheries in Chile









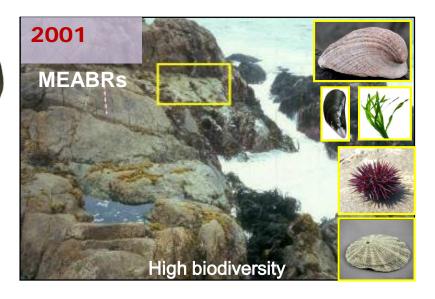
Emblematic, threatened, and now thriving — Chilean abalone industry rebounds thanks to exclusive access rights.

**Creation of Management** and Exploitation Areas for **Benthic Resources** 



# CASE STUDIES: THE CHILEAN "LOCO" FISHERY









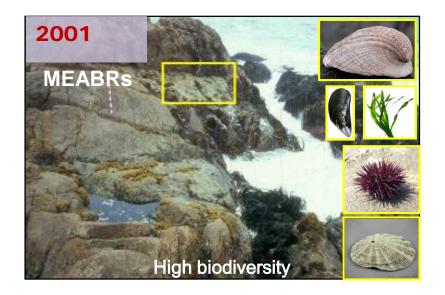
Gelcich et al. PNAS 2010, Defeo et al. 2015



## CASE STUDIES: THE CHILEAN "LOCO" FISHERY

# Performance assessment of "loco" fishery within MEABRs:

- Higher CPUE
- Low landings
- Decreasing fishing effort
- Stable individual sizes
- Higher unit prices





Gelcich et al. PNAS 2010



## **CASE STUDIES: GALAPAGOS (ECUADOR)**

Mid 90s → overcapitalization of artisanal fleet

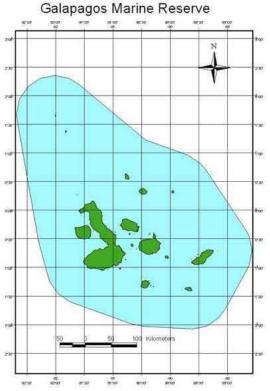
1998: new legal framework

Marine Reserve of Galapagos creation

# Management tools:

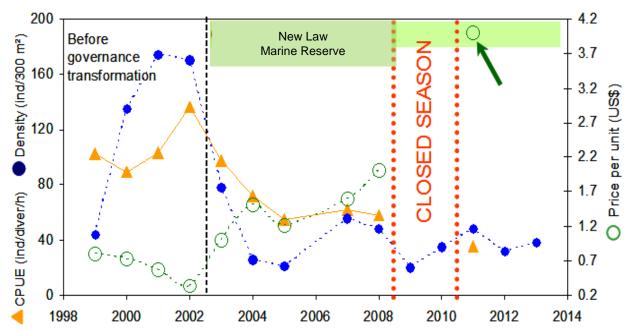
- Prohibition of industrial fishing
- Moratorium on entry
- Community rights for fishing
- Zoning scheme
- Governance mode → CO-MANAGEMENT







### **CASE STUDIES: SEA CUCUMBER FISHERY**





- Increase in unit price
- Decrease in CPUE
- Decrease in abundance
- 5 fishery closures in the last years
- Failure in translating high-level policy goals into tangible incentives
- Fishers feel vulnerable because political uncertainty

#### LESSONS LEARNED AND PROSPECTS

# 1) BARRIERS FOR EFFECTIVE EA IMPLEMENTATION:

- Legal frameworks on paper but not necessarily in practice
- High-level policy goals are not a sufficient condition for success
- Uncertainty: environmental, economic and institutional
- Lack of economic and human resources

# 2) STAKEHOLDERS PARTICIPATION IS CRUCIAL:

- CO-MANAGEMENT as formal governance mode
- Community-based data collection

# 3) NO MAGIC RECIPES, NO SINGLE PATHS !!!

- Combination of adaptable management tools
- Adaptable and dynamic management schemes

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