



Food and Agriculture  
Organization of the  
United Nations

# FAO Tenure and User Rights in Fisheries

## Rights-based Approaches in Ecuador's Fishery for Mangrove Cockles.

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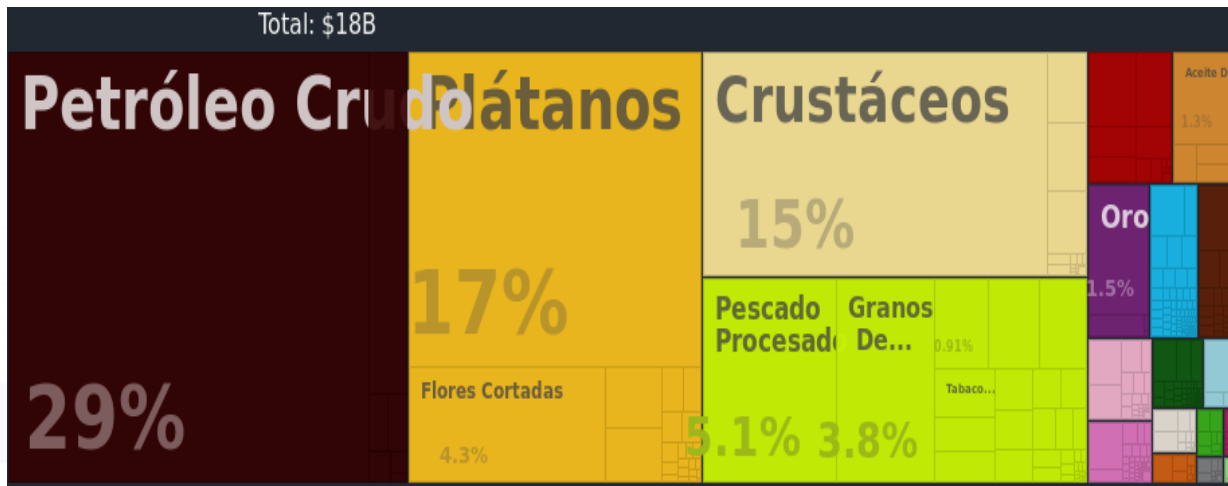
# Synopsis



1. The Overall picture: The cockle fisheries situation
  1. Ecuador's TURF arrangements within areas protected by mangrove concessions
  2. Recommendation

# Ecuadorian exports in 2016

- 283 561 km<sup>2</sup>
- 169 coves/fishing communities
- ca. 60,000 artisanal fishers



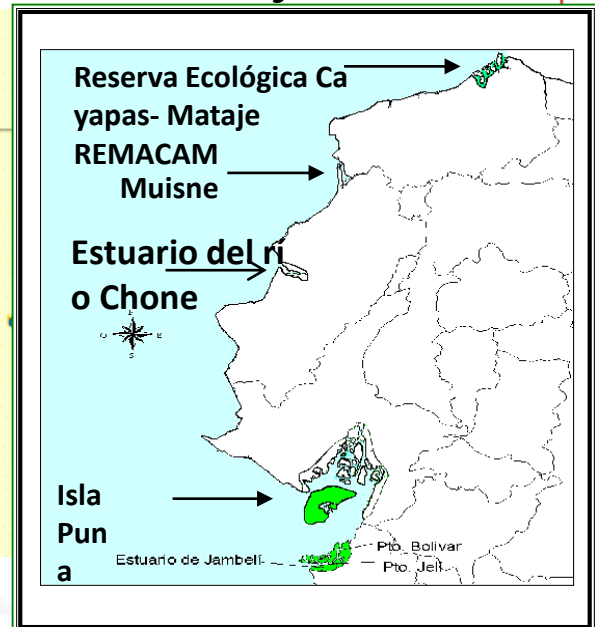
- White shrimp
- Tuna
- Dolphin fish (Mahi mahi)
- Mackerel, Sardine

Source OEC, 2017.

# ECUADOR

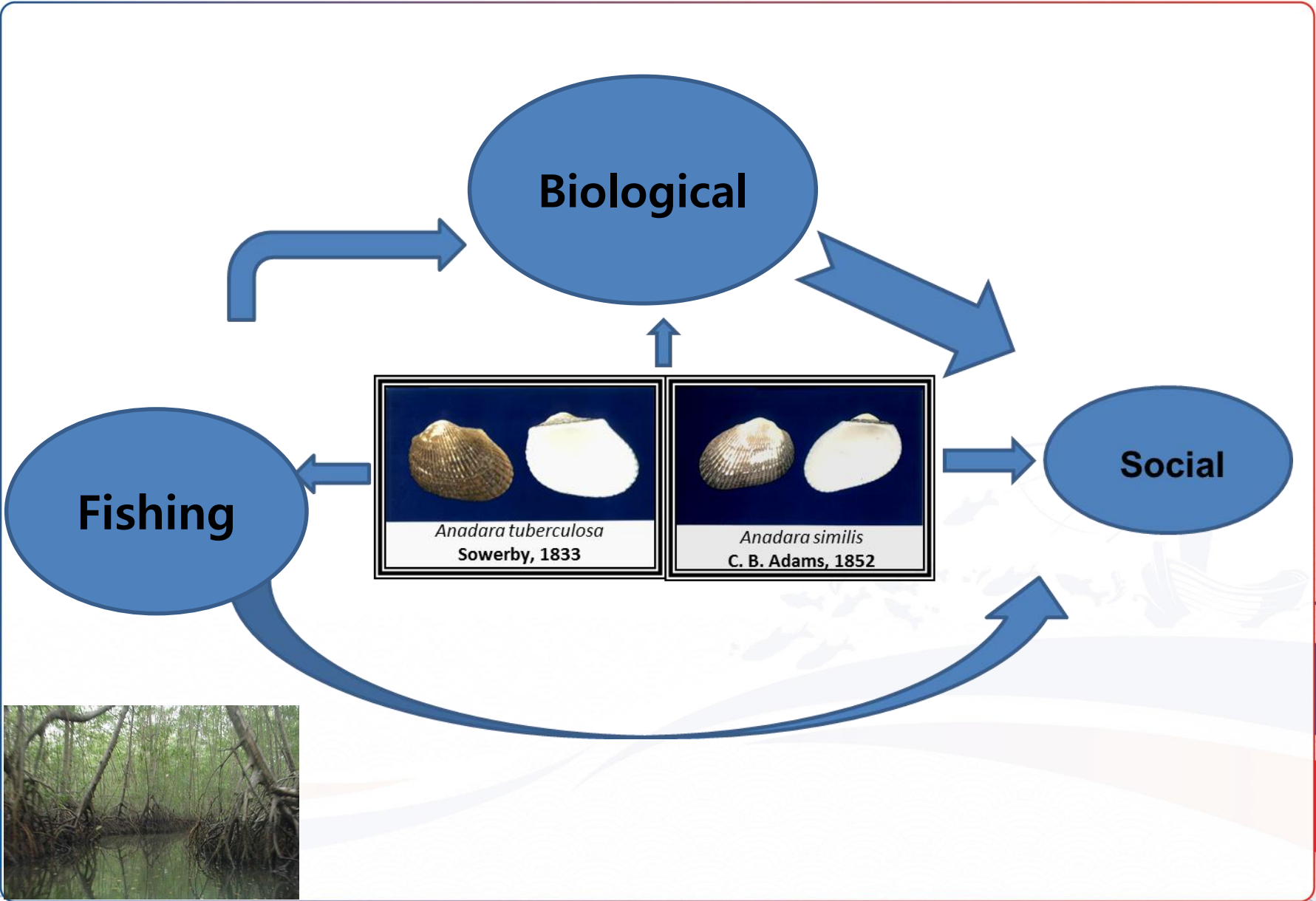
## Mangroves

### The mangrove cockle fishery



Cortesía de C. Condem





Ca., 3000 artisanal fishers manually harvest bivalve mollusks of the genus *Anadara*.



There are differences in the organization of fishing activity between urban areas and rural communities located within the mangrove forests.

# Reasons to be a “conchero” (Cockle fisher):

- Ancestral / Family tradition
- Cultural
- Lack of work alternatives
- Mangrove cockles captured are primarily used for human consumption (i.e. in houses & restaurants)
- They see merchants/middleman as their leader

# The Cockle Fisheries Problem

## **Appears generally as:**

- Low incomes of cockle fishers and their fishing communities
- High level of social risk
- Low quality of landings
- Poor access to financial capital
- Economic and social stagnation
- Displacement of cockle collectors from their communities
- Fishery Refuge (crabbers, fishermen and farmers)
- New fishing cockle collectors
- Illegal entry of Colombian fishing cockle collectors
- Non-associated collectors
- Conflict among cockle collectors to access concession areas.
- Diseases contracted by exercise of the activity
- Lack of effective size control
- Mangrove pollution by domestic garbage.



This state of affairs is caused by the  
Common Property Problem (CPP)!

The CPP implies absence of private property rights

⇒ Markets cannot exist

⇒ No market guidance toward the common good

∴ Overexploitation and waste !

The common property problem is caused by  
lack of individual fishers' rights in the fishery!

# Key Property Rights in Fisheries

Sole ownership

Rarely used

Effective

Community rights

Fairly common

Mixed evidence

Individual quotas  
IQs/ITQs

Widely applicable;  
very common

Effective if enforceable

Territorial User Rights  
TURFs

Mainly sedentary species

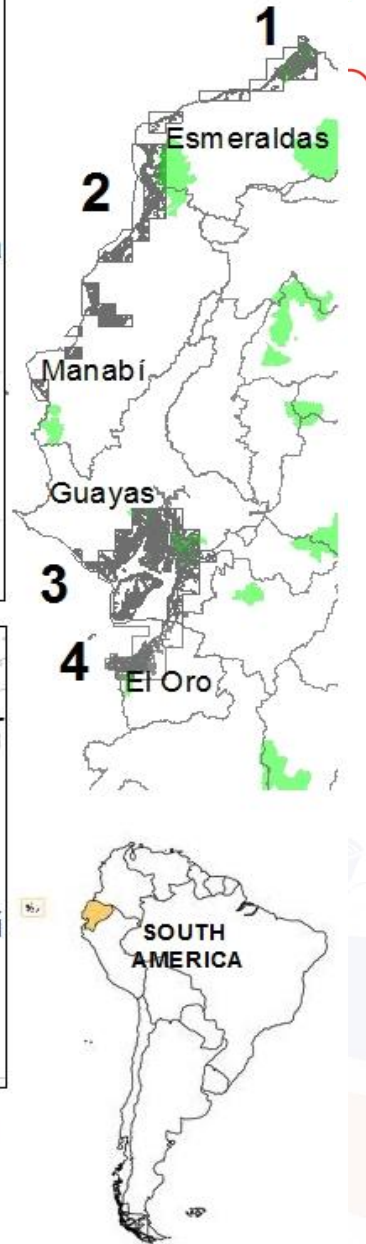
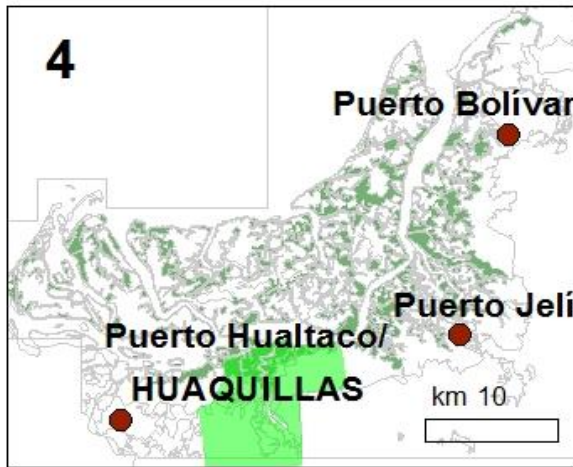
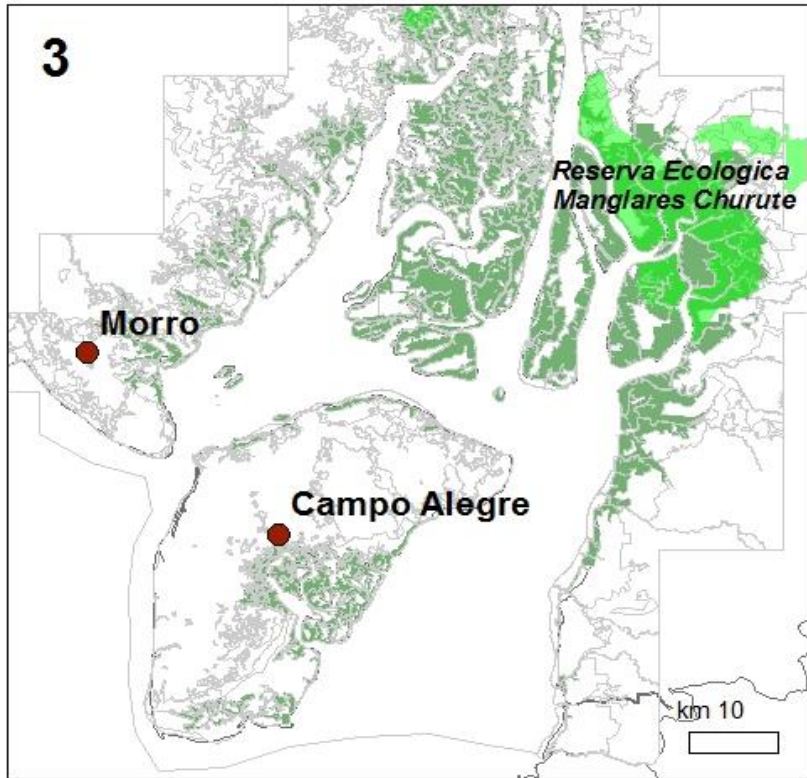
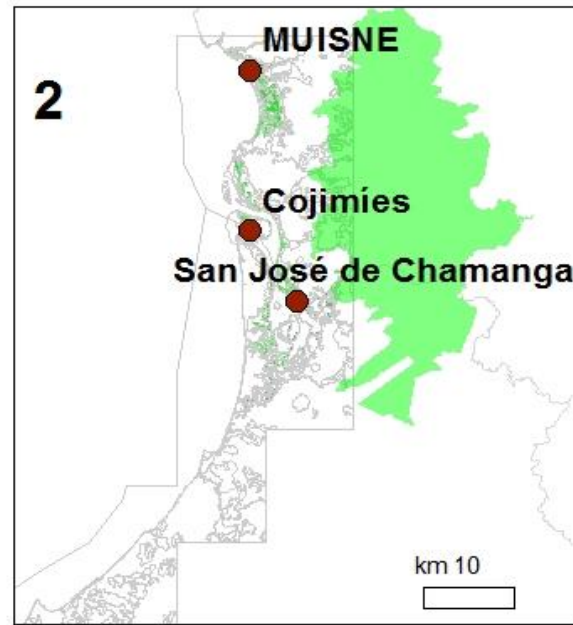
Effective if applicable

# Territorial User Rights TURFs

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Custody (Custodia)

TURFs are a model for fisheries where “*custodias*” are really an approach that bridges decentralized forest conservation, community-based management.



- PORTS/ SITES FOR COCKLE LANDINGS
- PROTECTED AREAS
- MANGROVE AREAS

The Artisanal Fishing Landings of the Mangrove Cockle Fishery – 52 –65 mil ha

# Mangrove Recovery/Protection & Fishery Management:

Monitoring,  
control &  
surveillance,  
**MCS**



## *Custodia* attempts to:

- Alleviate the ravages of overfishing
- Move the fishery toward the optimal point

## Nota bene

This is human management!

- Get people to act in the collectively “best” manner

*Custodia* = Property right\_ A permit (from Minister y of Environment/Government) to use to protect ,an groves, and to practice ancestral fisheries.

- The *Custodia* arrangement is a social organization
- It is a man-made institution

- Goals for *Custodia*

- Protect mangroves
- Common rights
- Protect living species found in mangroves and those which are subject of exploitation (e.g., crabs and cockles)
- Conserve mangrove species

# Who gains/who loses?

- Sensible reforms => net social gain (often substantial)  
⇒ Possible to make everyone better off (Hicks-Kaldor improvement)
- In reality not necessarily so
- In the long run
  - Fishers associations gain most
  - Independent fishers may lose
- ⇒ Social opposition
- In the long run most people gain (gdp & employment ↑)



# Recommendation

It is necessary to create opportunities for diversified livelihoods in locations where TURFs or similar forms of territorial use privileges are implemented. The basis for this recommendation is grounded in the number of independent cockle harvesters who may be displaced by a growing system of territorial use rights that reduces their access to their customary gathering grounds. While many cockle fishers prefer fishing based livelihoods and take pride in their livelihood, there are others who may have entered the fishery as a last resort during difficult economic times.

...continuing

- Support from the authorities and technical assistance are critical for the success and empowerment of communities with *custodias*, particularly in dealing with issues of conflict resolution Coello et al (2008).
- Finally, our case study suggests that mangrove *custodias* have strengthened the ability of cockle harvesters to contribute to the protection of mangrove forests, which was a significant challenge throughout the 1980s and 1990s. Such effective enforcement of mangrove conservation laws will continue to be a critical factor for the success of sustainable mangrove fisheries.

How to balance roles of government and resource users?



How to balance sharing benefits among stakeholders?

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