## International Expert Workshop on Biodiversity Mainstreaming

**Mexico City, Mexico 17-19 November 2015** 



Mainstreaming in the Fisheries Sector
The experience of Peru

### **National Center for Strategic Planning**

#### **PLAN BICENTENARIO**

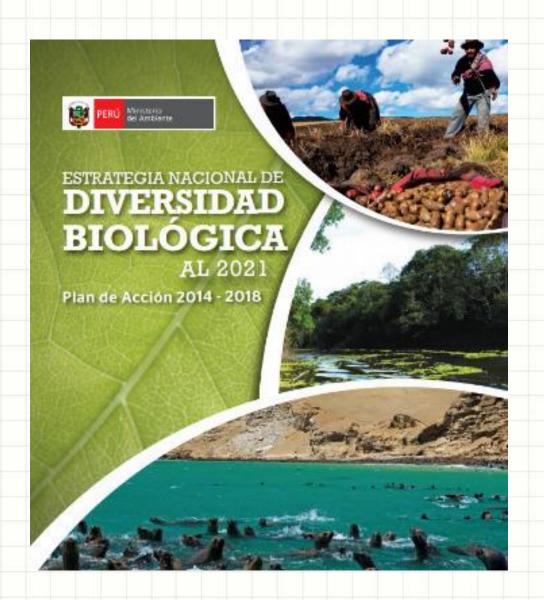




#### 6.3. A. NATIONAL OBJECTIVE:

Conservation and sustainable use of natural resources and biodiversity within an integrated and ecosystem approach and an enabling environment to promote good quality of life for our people and a healthy, viable and functional ecosystem in the long term.

## NATIONAL BIODIVERSITY STRATEGY TOWARDS 2021 AND ACTION PLAN 2014-2018



### Peru: One Step Ahead on Biodiversity Finance

8 Sep 2015

The South American country has passed two new policy instruments to mainstream biodiversity directly into the public finance system

### **Based on the National Biodiversity Strategy:**

- Policy Guidelines for Public Investment in Biodiversity and Ecosystem Services (Ministry of Environment/Ministry of Finance)
- Standards for Public Investment Projects in Biodiversity and Ecosystem Services (Ministry of Finance)

### Governance



### NATIONAL COMMISSION OF BIOLOGICAL DIVERSITY

- Multisectoral Commission under the Primer Minister Office
- Chaired by the Ministry of Environment
- 20 Public Institutions
- 12 Technical Groups:
  - ✓ Coastal and Marine Biological TWG.
  - **√** ...

# Examples of biodiversity mainstreaming at national and sub-national levels

National Level: Fisheries
 Management of the
 Peruvian Anchovy stock

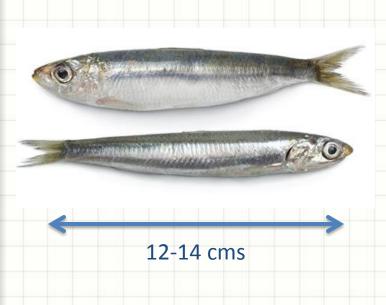


Subnational Level:
 Management of macro
 algae prairies. A case of
 community co-management



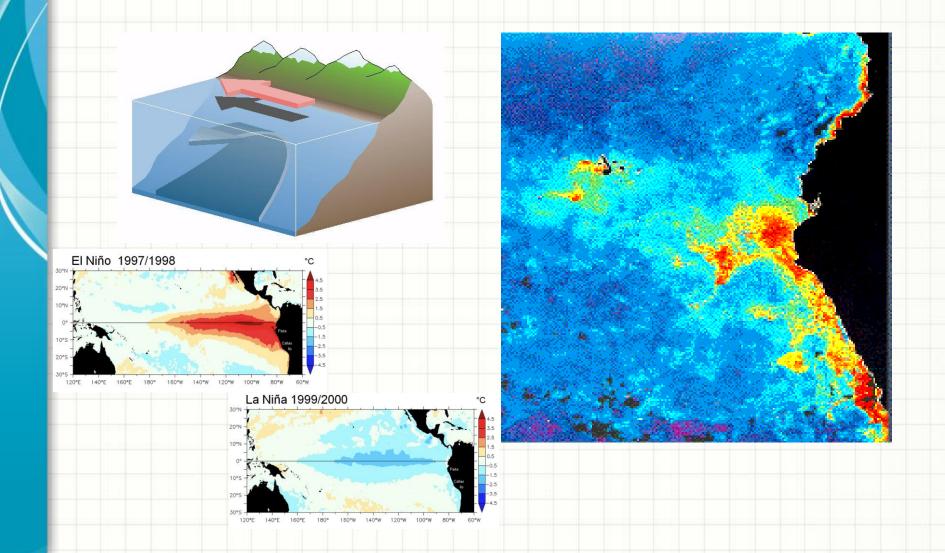
## Examples of biodiversity mainstreaming at national and sub-national levels

National Level: Fisheries Management of the Peruvian Anchovy stock



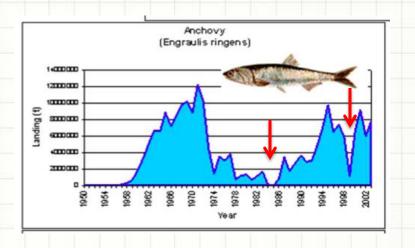


## The Peruvian Upwelling Ecosystem

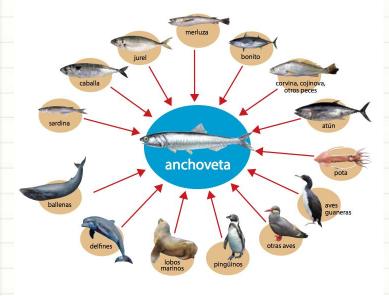


# Fisheries Management of the Peruvian Anchovy stock

 The Peruvian anchovy is the world's biggest fishery resource, with annual landings between 5 to 10-million metric tons. It generates up to onethird of the world's fishmeal supply.



 The anchovy plays a singular role in the biodiversity of the Peruvian upwelling marine ecosystem



# Fisheries Management of the Peruvian Anchovy stock

The Fisheries Law and regulations for the anchovy fisheries are based on an adaptive strategy due to the highly productive ecosystem and its large climate variability

- Sustainable management of fisheries and marine resources
- Fisheries management regulations:
  - ecosystems approach
- adaptive management

FISHERIES LAW AND ITS REGULATIONS

DL.Nº 25977

D.S. Nº 012-2001-PE

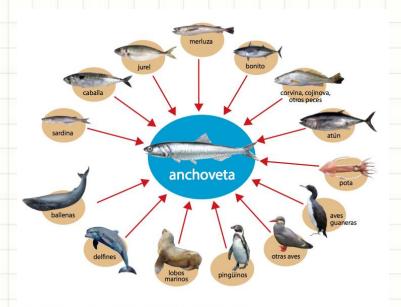
## Fisheries Management Regulations

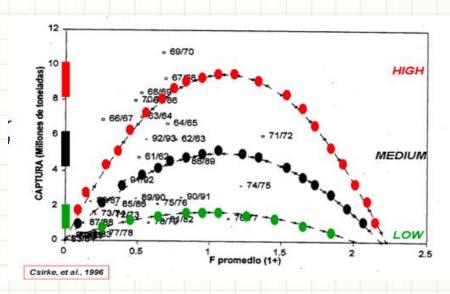
Industrial fisheries based on individual quota vessel (IVQ) system and seasonal allocation of a TAC quota

| Specie                                  | Anchovy                          |  |
|---|----------------------------------|--|
| Closed Fishing grounds                  | 5 nautical miles                 |  |
| Closed Seasons                          | Feb-March/Aug-September          |  |
| Minimum size                            | 12 cms                           |  |
| Minimum mesh size                       | 13 mm                            |  |
| Minimun % of juveniles                  | 10%                              |  |
| Total allowable catch (TAC)             | Oct-March / Apr-Sept             |  |
| Vessel control                          | Satellite VMS system             |  |
| Access to fishery                       | Closed                           |  |
| <b>Biological Reference Point (BRP)</b> | High -> 5/ Low -> 4 million Tons |  |
|   |                                  |  |

## **Anchovy Regulations**

 Regulations are adapted to the stock conditions, based on the BRP of 4 to 5 million tons of anchovies needed in the water for the ecosystem functioning and biodiversity





Partial model of the Humboldt Current ecosystem. Credit: Patricia Majluf

## **Anchovy Regulations**

 Regulations are adapted to the stock conditions, based on the BRP of 4 to 5 million tons of anchovies needed in the water for the ecosystem functioning and biodiversity (needed for small scale and artisanal fisheries)

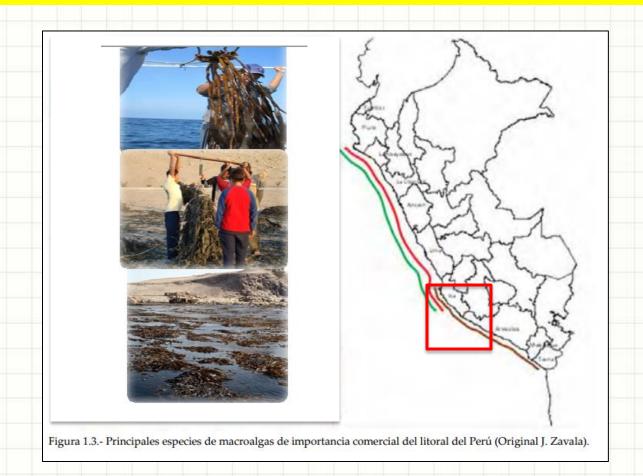




Eureka Operations: Monitoring of anchovy stock with support of private fishing vessels

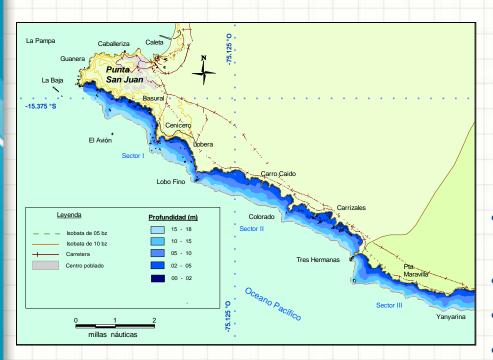
# Examples of biodiversity mainstreaming at national and sub-national levels

Subnational Level: Management of macro algae. Engagement of local communities. A case of comanagement.



### Subnational Level: Management of macro algae. Engagement of local communities

## OF BROWN MACROALGAE





- PERMANENT MONITORING OF ALGAE EXTRACTION
- ONLY ARTISANAL GEAR
- EXTRACTION AND COLLECTION
  - REGULATIONS FOR SUSTAINABLE MANAGEMENT WITH LOCAL COMMUNITIES

### Resources Associated with Macro algae prairies





Sea snail

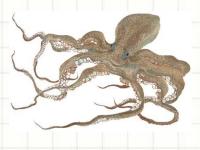
| Recurso    | Nombre Científico       | TME   |
|------------|-------------------------|-------|
| Chanque    | Concholepas concholepas | 8 cm  |
| Erizo rojo | Loxechinus albus        | 7 cm  |
| Pulpo      | Octopus mimus           | 1 kg  |
| Lapa       | Fissurella spp.         | 6 cm  |
| Aracanto   | Lessonia trabeculata    | 20 cm |
| Sargazo    | Macrocystis pyrifera    | 20 cm |



Limpet



Sea urchin



Octopus



silverside

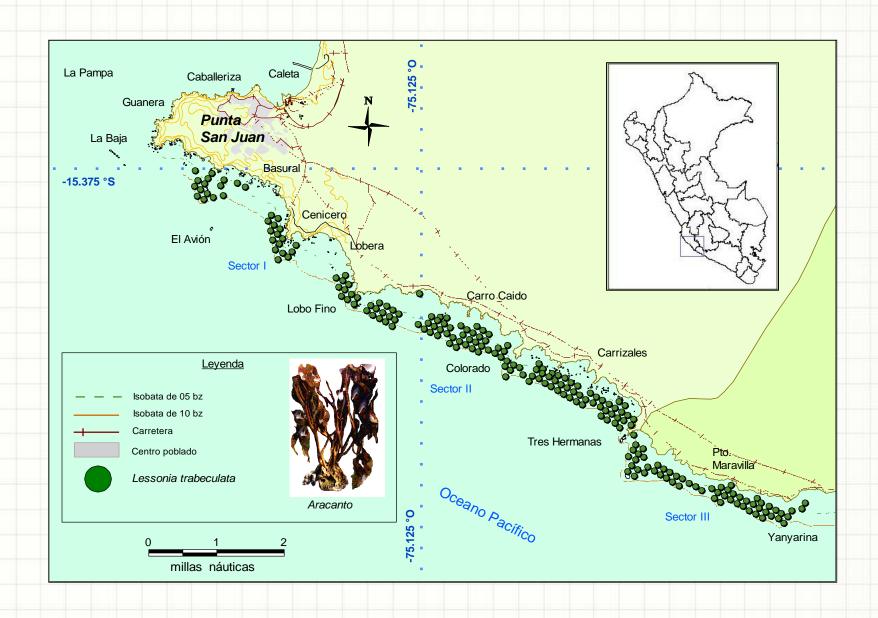


Flying fish

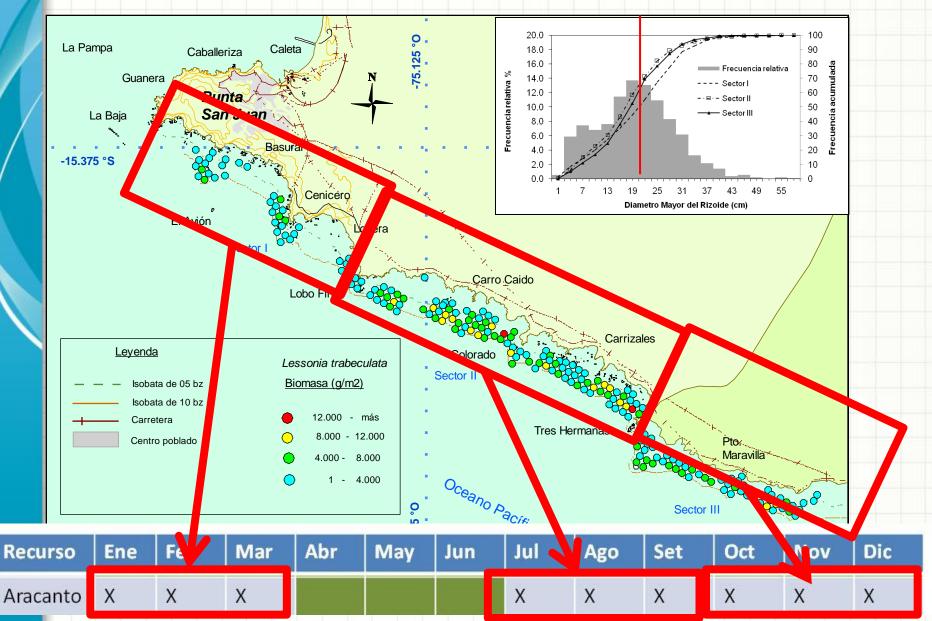
# The Artisanal Fishery Community of San Juan de Marcona COPMAR)



- Name: Comunidad Pesquera Artesanal de Marcona (COPMAR)
- 16 Artisanal associations (OSPAR) with 400 fishermen
- Requested a Co-management coastal stretch of 27 kms. Vice ministry of Fisheries assigned it as a Pilot Project.
- Management plans with Fisheries Institute (IMARPE)
- Case of gender participation
- Successful recuperation of macro algae community and its associates ecosystem (valued resources: octopus and sea urchins)
- Community Plan for a sea urchin hatchery

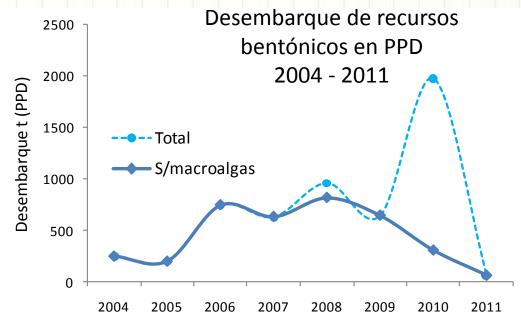


## ROTATION OF AREAS HARVESTING PERIODS



### MANAGEMENT PLAN BY THE COMMUNITY AND IMARPE





- Increasing macro algae crops
- Increase benthic resources
- Strengthen community organization
- Participation of women

