

# Fisheries Co-Management

## Some Principles and Concepts

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# Presentation of Fisheries Co- Management Definitions

# What is Fisheries Co-Management

Fishery is managed by local fishers and communities in Co-operation with government - shared decision making authority and responsibility

Different than current approach where government makes most decisions - might consult minimally with fishers, but mainly fishers are informed of rules and expected to obey

# Why Fisheries Co-Management

- Considered by most leading experts to be a more effective approach compared to conventional top down command and control approaches
- Fishers have significant input and say in what should be managed and how it should be managed
- Results in greater legitimacy of rules and therefore more voluntary compliance, self enforcement among peers

# Sustainable Fisheries Management

## Management Issues

- Overfishing
- Destructive fishing
- sustainable and environmentally friendly fishing

## Addressing Management Issues

- Toolkit for managing fisheries
- Institutional arrangements for management

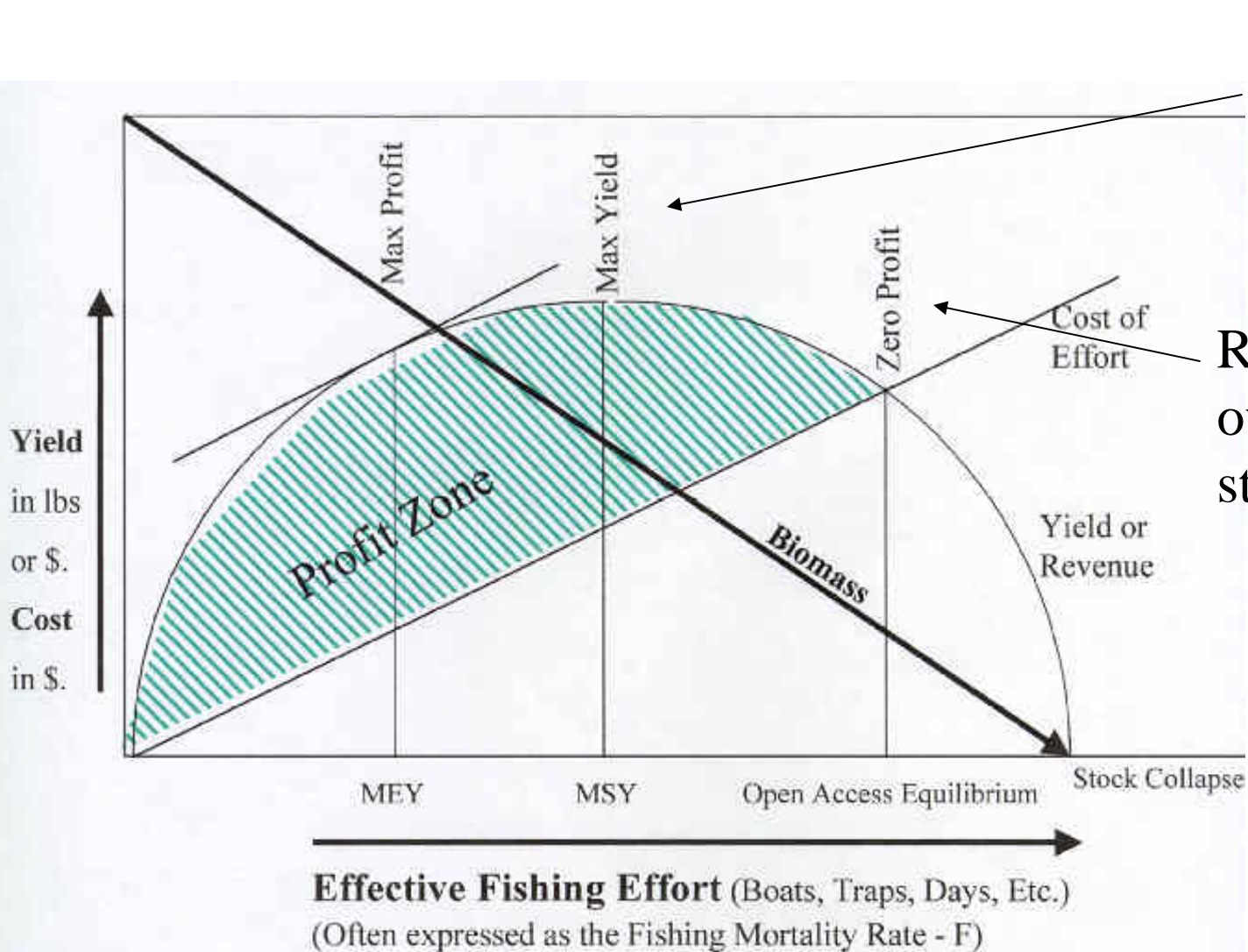
# What is sustainable fisheries?

- Monitor the condition and health of the fishery
- Protect it from destructive fisheries
- Prevent overfishing from unsustainable practices
- Fishers transformed from:

**Resource exploiters/users to  
Resource stewards/caretakers/managers**

# Some Basic Concepts in Fisheries

- Maximum sustainable yield
  - biological (Maximize total catch)
  - economic (Maximize economic profits)
- Equilibrium point in an open access fishery
  - beyond MSY
  - Total costs equal total revenues generated (including opportunity costs)
  - more fishers, but less catch per fisher
- Tragedy of the commons
  - each fisher tries to maximize gains - but overall it results in decline in resource



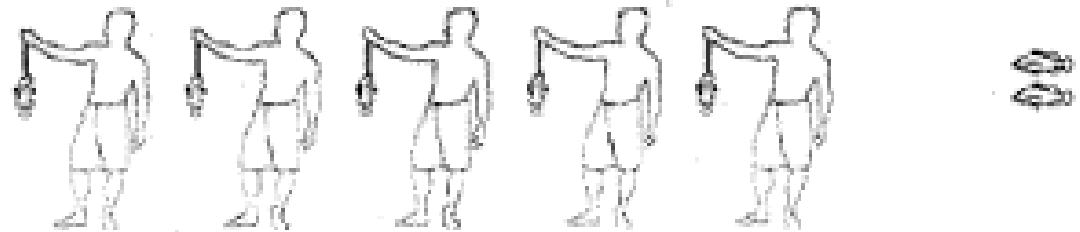
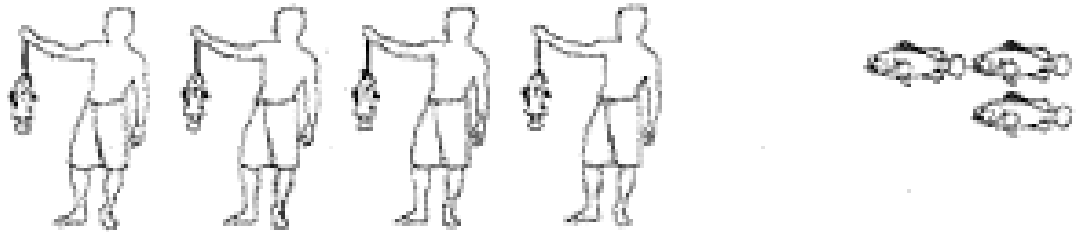
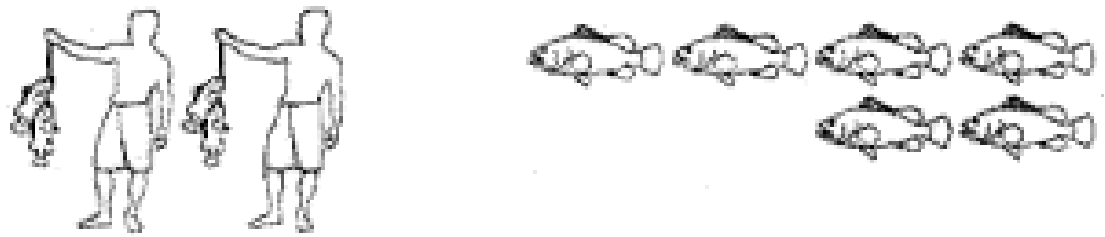
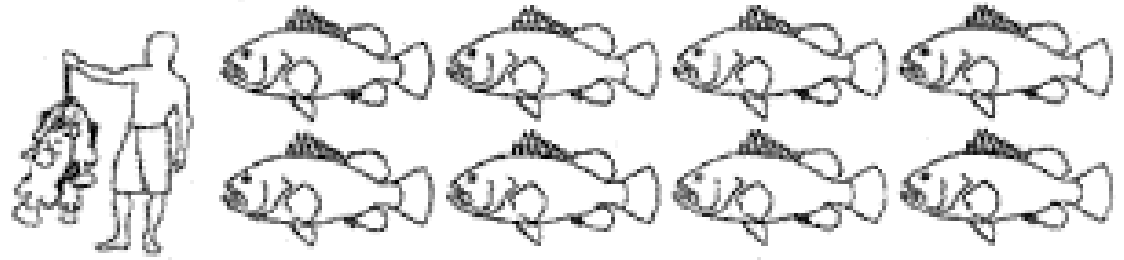
Growth overfishing starts here

Recruitment overfishing starts here

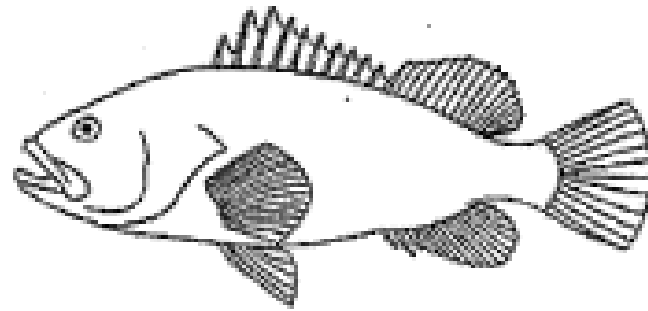
MEY - Maximum Economic Yield; MSY - Maximum Sustainable Yield



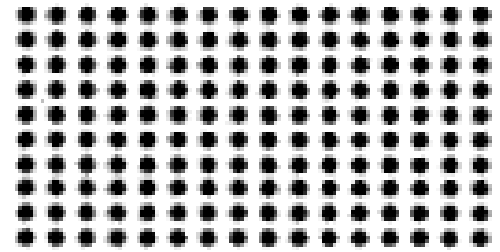
Relationship  
between Number  
of Fishers  
(effort) and Size  
and Abundance  
of Fish (catch)



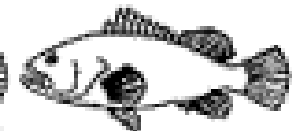
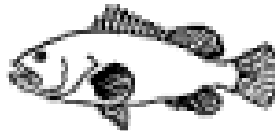
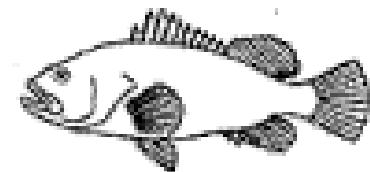
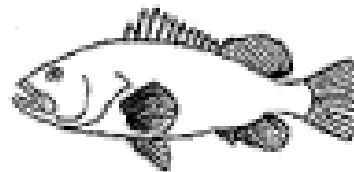
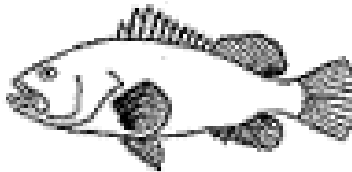
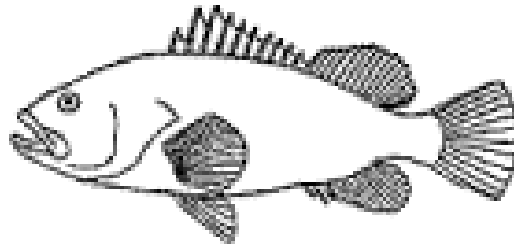
# Relationship between Fish Size and Egg Production



One large fish = many eggs



Many small fish = few eggs



Immature fish (not of breeding age) = no eggs



# Large Group Discussion -

## What is the Fisheries Management System in Thailand?

- Co-Management or Command and Control top-down management?
- Who makes rules?
- Who enforces rules?
- How does fisheries department consult with fishers in setting regulations?

# Small Group Discussions

5 Groups - mangrove, ocean crab, shrimp, squid, pelagic fin fisheries

Area maps for each fishery - where you fish N,S, W others?

Catch Trends - increasing, decreasing or same

- catch per day, size of individuals, effort

Time periods - this year, year before tsunami, 5 years ago, 10 years