

**Project** : Towards regional policies for sustainable fisheries for small pelagic in Northwest Africa

# SUB-REGIONAL FISHERIES COMMISSION SEMINAR ON SHARED STOCKS

Definitions and Importance of Cooperating in the  
Management of Shared Stocks

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## DEFINITION OF SHARED - STOCKS

A group of commercially exploitable organisms distributed over, or migrating across, a maritime boundary between two or more national jurisdictions, whose exploitation can only be managed effectively by cooperation between the States concerned, but where emigration to or immigration from other jurisdictions need not be taken into account



# Categories of Shared-Stocks

- Trans-boundary fish stocks
- Highly Migratory Fish Stocks
- Straddling Fish Stocks
- High seas Stocks

Categories are not mutually exclusive. One can find many examples of fishery resources that are at one stage of their life, trans-boundary, highly migratory or straddling stocks.



# Usefulness of Categorization

- Type and number of Participants
- Arrangement could be simple or complicated
- Instruments could be binding or non-binding

# Meaning of Cooperative Management

- Close and continuous interactive process between all stakeholders
- Relationship of confidence, respect and trust
- Coupling of science with Policy and decision-making processes
- Roles and responsibilities of science, policy and decision-makers and others clearly defined and agreed

# Biological/Geographical Classification of Shared – Stocks

## Two major classifications

- Stocks show no clear migratory pattern
- Stocks display clear pattern of movement
  - Resulting from seasonal migration
  - According to developmental stages

# Representation for Possible Management 3 sharing Scenarios

ACTION	NO SHARING OF STOCKS	LITTLE SHARING OF STOCKS	LARGE SHARING OF STOCKS
SEPARATE MANAGEMENT	X	X	X
JOINT MANAGEMENT			X

# Economic, Biological and Ecological Importance for Joint Management

- Theory of Strategic Behavior (Actions of individuals are influenced by those of other individuals)
- Theory of Games (Players, Strategies, Pay-off, the GAME and Solution; Do nothing is the dominant option if there is no communication)





# Main Types of Interactions

- Competitive or Non-Cooperative (Motivated by self interests but little or limited opportunities to communicate)
- Cooperative (Motivated entirely by self interest but have some incentive to communicate)

# Non-cooperative Management Scenario

- Outcome in shared stocks with no joint management for long periods is similar to those of unrestricted open access domestic fishery, namely; over-exploitation, over-capitalization and in brief mismanagement)
- The phenomenon is better explained by the so-called “Prisoners’ Dilemma”

# Representation of Prisoners' Dilemma

<b>PRISONER A/ PRISONER B</b>	<b>PLEADS GUILTY (DO NOTHING)</b>	<b>PLEAD NOT GUILTY (UNDERTAKE MANAGEMENT)</b>
<b>PLEADS GUILTY  (DO NOTHING)</b>	<b>5 YEARS EACH  (MIS- MANAGEMENT)</b>	<b>0 YEARS FOR A, and 10 YEARS FOR B  (FREE-RIDING FOR B)</b>
<b>PLEADS NOT GUILTY  (UNDERTAKE MANAGEMENT)</b>	<b>10 YEARS FOR A, AND 0 YEARS FOR B (FREE-RIDING FOR A)</b>	<b>SIX MONTHS EACH  (HEALTHY STATE OF SHARED STOCKS)</b>

# Some Examples of Shared Stocks that have suffered from No Cooperation in MANAGEMENT

- ❖ Shared Hake Fisheries of Southwest Africa
- ❖ Pacific Salmon Fishery
- ❖ Atlantic Cod Fishery of early 20th Century
- ❖ Canadian Cod Fisheries off New Found Land
- ❖ Norwegian Spring Spawning Herring Fishery

# Scenario of Cooperating in Management of Shared Stocks

- Over-fishing and possible collapse of stocks can be avoided;
- Optimization of economic, social and nutritional contribution of the fishery
- Knowledge and management of the fishery and associated ecosystem can be improved.
- Provide vehicle for creating strong regional fisheries management organization based on the tenets and principles of relevant recently adopted international instruments,

# Essential Ingredients for Good Cooperating Processes

- Bargaining capabilities,
- Availability of reliable information and data,
- Numbers
- Compliance,
- Effective communication and
- Elimination of “free riders”.

# Example of Good Cooperation in Management of Shared Stocks

## ❖ South Pacific Forum Fisheries Agency

### ❖ Reasons for Success

- share a common interest and objective
- Objectives of the South Pacific countries are explicit;
- The object and purpose of establishing an organization are explicit
- The strong links between the FFA and the South Pacific Islands Forum
- Role of countries in providing policy and administrative guidance in the work programme of the FFA is clear and recognized;
- Role and functions of the FFA are flexible
- The clear delineation between the functions of the technical Secretariat and the governing council of the FFA



# SUMMARY AND CONCLUSION

- ❑ Management of shared fishery resources stands as one of the greatest challenges on the way towards achieving long-term sustainable fisheries.
- ❑ In the absence of cooperation, shared fish stocks are doomed to become over-exploited or even depleted with potentially dramatic economic, social and nutritional impacts on the countries concerned.
- ❑ Responsible cooperative management contributes to the long-term conservation of the fish stocks and their sustainable use by the fishery sector and the international community.





THANK YOU

