



# Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic Ocean (ATLAFCO/COMHAFAT)

## The concept of Monitoring, control and surveillance( MCS)



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*Harnessing today without compromising tomorrow ...*



# Introduction



Repositorio de la Universidad de Pinar del Río "Gustavo G. M. de los Ríos"  
Instituto de Estudios de la Pesca y Acuicultura

- ❑ Fisheries are central to the development of a country's marine resources
- ❑ Fish and their habitat are the key renewable resources in the territorial seas and exclusive economic zone
- ❑ The goal of fisheries management, including **Monitoring, control and surveillance (MCS)**, is to maximize the economic opportunities and benefits from the State's waters within sustainable harvesting limits
- ❑ **Fisheries MCS needs to be defined in light of this goal**



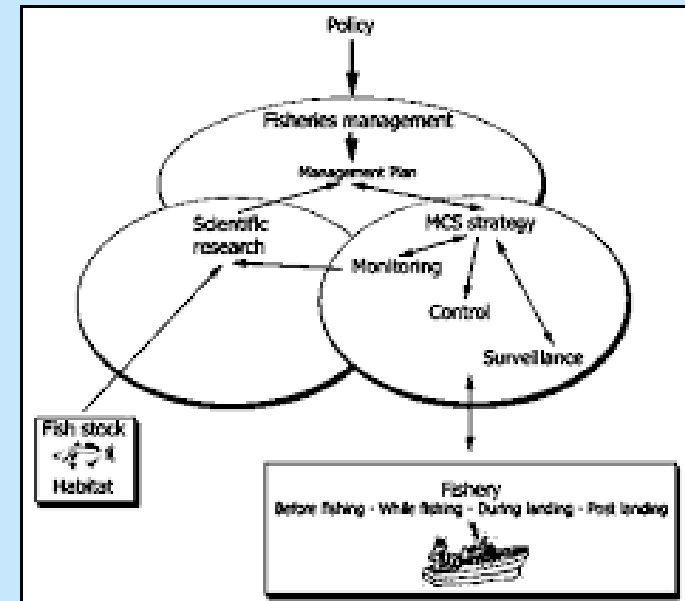


# Introduction



Regional Fisheries Management Association  
Bonn, Germany

- ❑ MCS has often been seen as self-explanatory and not **requiring much consideration**
- ❑ As it is perceived as “**simply the policing of the various maritime zones controlled by the State**”
- ❑ This presentation attempts to demonstrate how MCS is important to the implementation of any oceans related policy, in particular for **fisheries management**
- ❑ **MCS is really the executive arm of fisheries management**





# The definition of MCS



Repositorio de la Universidad de Puerto Rico  
Instituto de Estudios de la Pesca y Acuicultura

- ❑ The MCS is a term developed by the **FAO MCS Conference of Experts in 1981** which is now widely accepted as a *key principal in sustainable fisheries management and identified as the best hope in preventing, deterring and eliminating IUU fishing*
  
- ❑ It is defined as:
  - ❑ (i) **monitoring** - the continuous requirement for the measurement of fishing effort characteristics and resource yields;
  - ❑ (ii) **control** - the regulatory conditions under which the exploitation of the resource may be conducted; and
  - ❑ (iii) **surveillance** - the degree and types of observations required to maintain compliance with the regulatory controls imposed on fishing activities





# Historical background of MCS



Regional Office for the Eastern Pacific and the Western Indian Oceans  
Bureau of Fisheries and Aquaculture

- ❑ The subject of monitoring, control and surveillance came to the fore in **international and national fishing fora during the 1990s** as a consequence of
  - ❑ **rapidly depleting fish stocks**
  - ❑ **global initiatives** to respond to this crisis
  - ❑ **technological developments** which facilitate the remote monitoring of vessels
- ❑ One of the most significant developments during the last decade from the perspective of MCS was the coming into force of the **1982 United Nations Convention on the Law of the Sea** in November of 1994.
- ❑ This once again raised the **profile of the obligations** which States have with respect to:
  - ❑ **the assessment of their fishing stocks**
  - ❑ **the allocation** of that portion of the total allowable catch that is surplus to national needs to third parties; and
  - ❑ **the further obligation to conserve their fisheries**, other marine living resources and the marine environment.





# MCS Coverage



Regional Office of the Food and Agriculture Organization  
Rome and Subregional Office for the Western Pacific

- ❑ Since the 1981 MCS Conference, the definition of MCS has been enhanced to promote the concept that MCS covers more than just fisheries enforcement and should be viewed as an integral and key component for the implementation of fisheries management plans:
  - ❑ Encompassing not only traditional enforcement activities but also
  - ❑ The development and establishment of data collection systems, enactment of legislative instruments
  - ❑ The implementation of management plan through participatory techniques and strategies

A 1993 workshop in Ghana offered the following clarifications:

- ❑ **Monitoring** includes the collection, measurement and analysis of fishing activity including, but not limited to: catch, species composition, fishing effort, bycatch, discards, area of operations, etc.
  - ❑ This information is primary data that fisheries managers use to arrive at management decisions.
  - ❑ If this information is unavailable, inaccurate or incomplete, managers will be handicapped in developing and implementing management measures.



# MCS Coverage



Repositorio de la Universidad de Pinar del Río "Gustavo G. M. de los Ríos"  
Instituto de Estudios de la Pesca y Acuicultura

- ❑ **Control** involves the specification of the terms and conditions under which resources can be harvested.
  - ❑ These specifications are normally contained in national fisheries legislation and other arrangements that might be nationally, sub-regionally, or regionally agreed.
  - ❑ The legislation provides the basis for which fisheries management arrangements, via MCS, are implemented.
  - ❑ For maximum effect, framework legislation should clearly state the management measures being implemented and define the requirements and prohibitions that will be enforced.
- ❑ **Surveillance** involves the regulation and supervision of fishing activity to ensure that national legislation and terms, conditions of access and management measures are observed.
  - ❑ This activity is critical to ensure that resources are not over exploited, poaching is minimized and management arrangements are implemented.



# Components of MCS

- ❑ MCS has three spatial components: **land, sea and air**
  - ❑ The land component serves as the base of operations and involves the coordination of MCS activities and deployment of available resources
  - ❑ The sea component includes the surveillance of maritime zones of coastal state, and may include the use of radar, sonar and vessel platforms
  - ❑ The air component includes air surveillance and also includes the use of satellite-based technology to identify possible fisheries violations.
- ❑ The combination right of these three components based on **the resources and capabilities of States** determine **success in responding to IUU incidents on areas of national jurisdiction and the high seas.**







# Role of MCS in Fisheries Management



Regional Fisheries Management Area  
Berikan dan laksanakan Peraturan Perundang-undangan

## Where do fisheries management and MCS merge

### Fisheries management

- ❑ **Data collection and analyses:** data for management planning and operations from socioeconomic studies, onboard observers (if established as a program), dockside monitoring/landings, VMS, satellite imaging, inspections at sea and in port, etc
- ❑ **Participatory management planning:** planning of fisheries management policies and strategies at the national level, and detailed planning for management zones or areas with input from stakeholders (provinces, districts and fishers)
- ❑ **Establishing a regulatory framework:** The management plans need to be supported by appropriate legal instruments by means of which the plans are implemented,
- ❑ **Implementation:** public awareness and education campaigns; full enforcement to ensure compliance by those minority of fishers that persist in ignoring the law

### MCS involves

- ❑ **Data collection and analyses** for both operational planning and execution, as well as management planning, defined as **monitoring (M)**
- ❑ involvement in the **participatory management planning** to include discussions on appropriate implementing mechanisms
- ❑ development and approval of **appropriate and enforceable legislative** instruments and control mechanisms such as licenses, permitted fishing gear, seasons, vessel sizes, fish sizes, species, catch limits, by-catch limits, and area controls, or other restrictions to support the management plan, referred to as the **control mechanisms (C)**
- ❑ implementation of the plan through "preventive" and "deterrent" MCS techniques, included in the idea of **surveillance (S)**.



## International and Regional Frameworks of relevance to MCS



Regional Fisheries Management Organization  
Buenos Aires, Argentina

- ❑ UN Convention on the Law of the Sea (UNCLOS) (1982)
- ❑ UN Fish Stocks Agreement (1985)
- ❑ FAO Compliance Agreement (1993)
- ❑ FAO Code of Conduct for Responsible Fisheries (1995) International Plan of Action to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing (IPOA-IUU) (2001)
- ❑ FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (2009) Regional Framework
- ❑ Regional Fisheries Management Organizations



# Conclusion



Regional Reef and Marine Fisheries Management  
Forum of African Aquaculture Training Institutions

- ❑ Erroneous perception is to regard MCS as being exclusively concerned with **enforcement**, while ignoring the other two components: **monitoring** (data collection); and the **control** mechanisms (legislation, licensing, and controls on gear, season, areas, etc.)
- ❑ Many fisheries administrators and supporting agencies make their focus only on the **"surveillance/enforcement"** or deterrent and repressive aspects of MCS.
- ❑ This is often without realizing that MCS is the executive arm, or one of the key implementing mechanisms of fisheries management.
- ❑ All three components, the Monitoring, the Control, as well as the Surveillance and enforcement are needed to **implement fisheries and resource management**



# THANK YOU FOR YOUR ATTENTION



Regional Office of Fisheries and Aquaculture Development  
Bureau of Fisheries and Aquaculture Extension Services

