

FISHERIES MANAGEMENT AND MCS



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Contents

Basics of fisheries management

- principles; management approaches;

Monitoring, Control and Surveillance (MCS)

- Components
- MCS tools

International and Regional Frameworks

International Fisheries Instruments of relevance to MCS

- 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
 - GFCM

Principle objectives

- **Maintenance of the structure, productivity, function and diversity of the ecosystem**
- **Conservation, management and exploitation of fish stocks**
 - **Prevention of fully exploited, overexploited or depleted fish stocks**
 - **Recovery of depleted populations**
- **Socio-economic returns close to optimum theoretical limit**
- **An effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks**

Source: Marine Stewardship Council. MSC principles and Criteria for Sustainable Fishing.

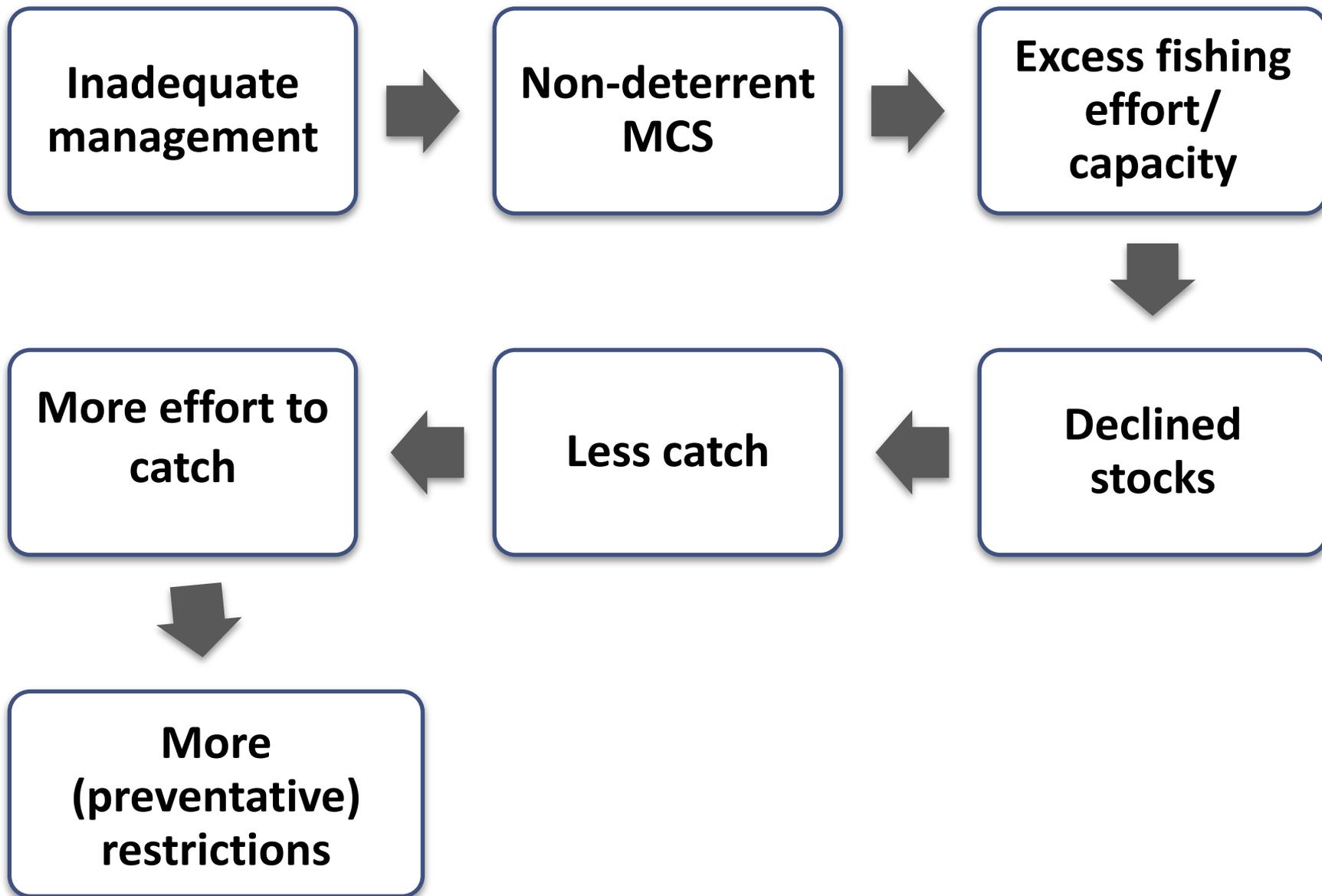
Conventional management approaches

- Top-down (command and control) approaches
- Neglected financial incentives and market mechanisms
- Few fisheries management objectives
- Fisheries industry focus; less consideration to small-scale fisheries
- Narrowed stock/fishery scale

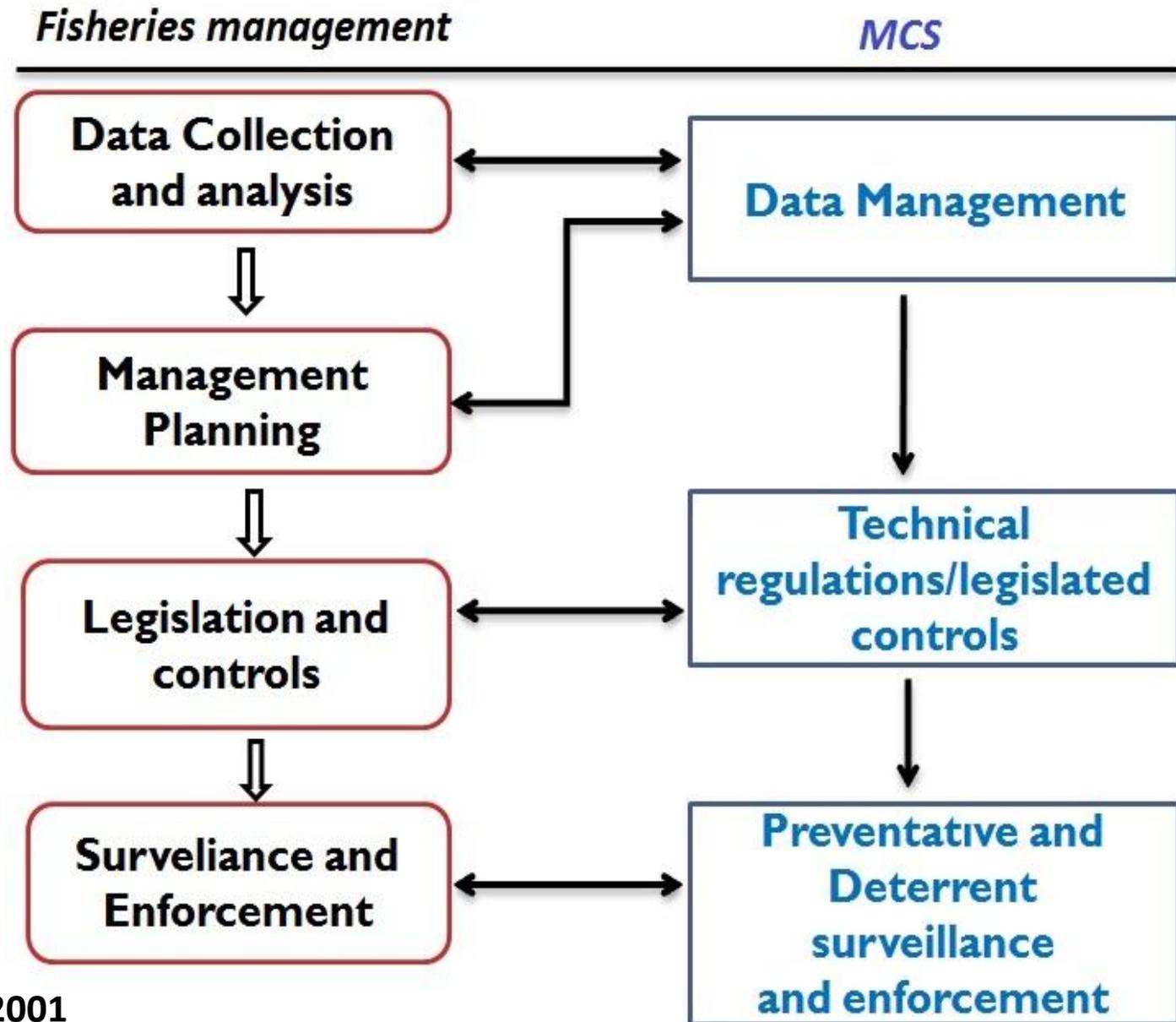
MCS

- Poor monitoring of fisheries resources
- Ineffective MCS tools
- General lack of implementation and enforcement

Trend



Fisheries Management and MCS



Fisheries data

Biological data

- Age, sex, growth, recruitment, reproduction, mortality, stock size, distribution
- Habitat characteristics

Operational (fishing activity related) data

- Landings, targeted fish species, by-catch, fishing grounds, fishing gear characteristics and effectiveness
- capacity (tonnage, engine power, fleet segment)
- Effort

Social-economic data

- Employment, income, value, expenditures, taxes, revenue, marketing, operation costs, selling price, labor costs, trip costs

Legislation

- **Framework for implementation of the management plan**
- **Law/by-law**
- **Established rules/regulations**
- **Responsibilities, roles**
- **Rights of resource users**
- **Basics of MCS**
 - **control mechanisms**
 - **Infringements**
 - **Penalties**
- **Technical regulations**

Monitoring

Collection, measurement and analysis of data and information on fishing activities

- **Catch, species composition, fishing effort, by-catch, discards, area of operation**

SEA	PORT	MARKET
<ul style="list-style-type: none">• Licence for fishing• Fishing/ catch permits• Logbook• Notification at sea• Transshipment documentation	<ul style="list-style-type: none">• Landing declaration	<ul style="list-style-type: none">• Take-over declarations• Sales notes• Transport documents• Catch certificate

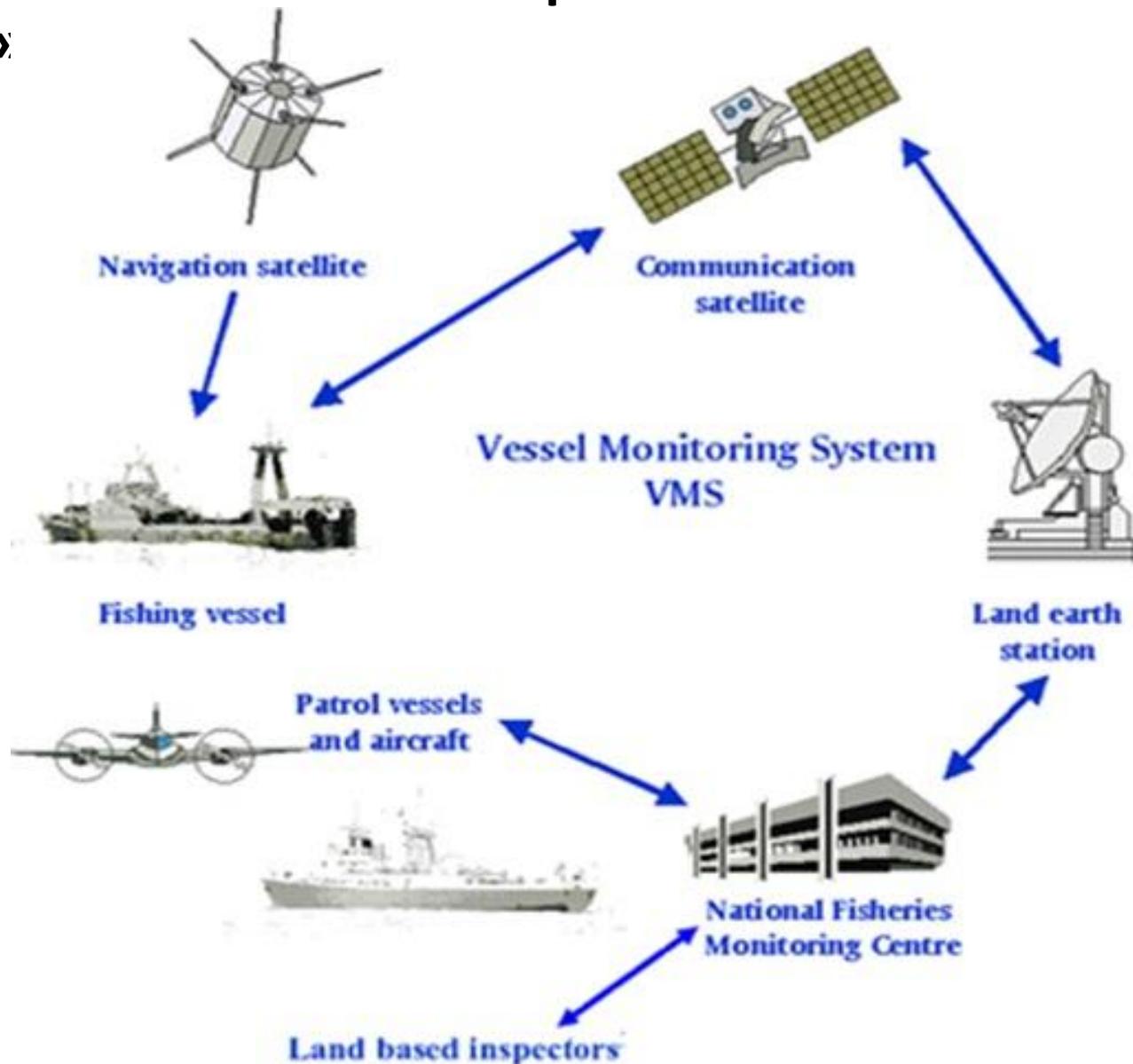
Control

«Terms and conditions under which resources can be harvested»

<i>Input controls</i>	<i>Output controls</i>
<ul style="list-style-type: none">• Limited entry• Vessel and gear restrictions• Area and temporal closures restrictions	<ul style="list-style-type: none">• Total Allowable Catch limits• Vessel Catch Limits/Trip limits• Individual (transferable) quotas• Species limits• Size limit

Surveillance

«Observations required to maintain compliance with the regulatory controls»



Surveillance (2)

Immediate enforcement measures

- immediate cessation of fishing activities;
- rerouting to port
- rerouting of the transport vehicle
- confiscation of fishing gear, catches or fishery products;
- temporary immobilisation of the fishing vessel /transport vehicle
- suspension of the licence/authorisation to fish

Inspections

Compliance checking for fishing, market and/or transportation

- Vessel, port, transport vehicle, market

Surveillance (3)

- **Infringements**

Recording of violation

- Sanctions and accompanying sanctions for serious infringements
 - confiscation of the fishing vessel involved in the infringement;
 - temporary immobilisation of the fishing vessel;
 - confiscation of prohibited fishing gear, catches or fishery products;
 - suspension or withdrawal of authorisation to fish;
 - reduction or withdrawal of fishing rights;
 - temporary or permanent exclusion from the right to obtain new fishing rights;
 - temporary or permanent ban on access to public assistance or subsidies;
 - suspension or withdrawal of the status of approved economic operator
- **Court**

Compliance

Compliance: conformity level with the law, rules, and regulations

Preventative (voluntary) compliance

Common understanding and support from fishers, fishers' organizations, community, and industry

- Awareness and understanding
- Increased ownership/acceptance
- Voluntary compliance with law and regulation
- Peer deterrence
- Promotion of participatory management
- Promotion of reliable data collection

Deterrent compliance/enforcement

- inspection and monitoring;
- investigation of offences;
- prosecutions; and
- fines, suspensions , confiscation and forfeitures

Compliance = Voluntary Compliance + Deterrence

MCS tools

- Registration and licensing
- Fisheries information systems/data cross-checking
- Information management and intelligence analysis
- Vessel and gear marking
- Vessel Monitoring/Detection Systems
 - VMS:Vessel Monitoring System
 - AIS:Automatic Identification System
 - VDS:Vessel Detection System
- Vessel inspections
- Port inspection
- Control of transshipment
- Aerial and surface surveillance
- Transport and market inspections
- Observer schemes
- Catch documentation scheme

Future remarks

- Policy, management plans, indicators
- Legislation
- Practical harmonized enforceable rules, regulations, technical measures
- MCS
 - Functional institutional structuring; share of responsibilities
 - Human resources
 - Training, awareness building
 - Co-management; input of industry and fishers
 - MCS technology and communication systems
 - Cooperation mechanisms (national, bilateral and regional)
 - Documentation (reporting/records)
 - More voluntary compliance
 - Preventive actions/enforcement