Fisheries Legal, Regulatory and Developmental Setup, shares of responsibility, and enforcement regimes- Central and State

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- Endowed with a long coastline of 8129 km
- 2.02 million sq.km of EEZ
- 0.5 million sq.km of continental shelf
- 13 maritime states & UTS
- 3100 fishing villages
- 1588 fish landing centres
- annual marine fishery potential of 3.93 MMT

NTRODUCTION

(CMFRI annual report ,2005-06)

Responsibility

- The responsibility for fisheries is spread over several agencies, ministries at central and state level
- Fish production from EEZ as well as major fishing harbor, fishing vessel industry, sea food export trade and marine and inland research and trainings are on List I or union list
- The parliament has exclusive power to make laws with respect to any matter
- Marine fisheries in the territorial waters , inland and aquaculture are under the jurisdiction of the state List II.
- The protection of wild animals and forest, protection coastal zone marine biodiversity and prevention of land based sources of pollution are responsibility of both the union and state government

Union Government

The union government, the following ministries play roles in the fisheries sector-

- Ministry of agriculture,
- Ministry of commerce,
- Ministry of environment and forest,
- Ministry of food processing industry and
- Ministry of defense

- Department of animal husbandry and Dairying, Department of agriculture research and extension, Department of agriculture and cooperation are responsible for fisheries in the EEZ, survey and assessment of fisheries resources , exploration of resources in EEZ, fisheries development, fisheries technology and fisheries management in addition to education, research, training and extension as well as for aquaculture development

Ministry of agriculture

Ministry of commerce and industries

- Ministry of commerce and industries is responsible for the development and promotion of export of fish products, quality control and for setting standard for the processing units
- Department of commerce, Directorate of foreign trade ,Export inspection council ,and MPEDA are engaged in fisheries sector

Ministry of food processing industries

- Ministry of food processing industries deals with fish processing
- It is responsible for providing technical assistance and advise to fish processing industries

Ministry of defense

- Coast guard coming under Ministry of defense, provides assistance and protection to fishermen at sea while in distress, regulates fishing by foreign fishing vessels in the maritime zones, and preserves and protects the marine environment from pollution
- The coast guard has a mandate to protect endangered marine species under the wild protection act, 1972
- Ministry of shipping is in charge of fishing vessel industry and fishing harbor

Ministry of environment and forest

- The ministry of environment and forest protects and preserve the coastal and marine ecology and marine environment(EEZ)
- MoEF looks in to coastal habitat protection issue
- the MoEF is the main agency for the United Nations Environmental programme(UNEP)
- The department of ocean development is responsible for development of technology, mapping of resource and the establishment of ocean commission

- The ministry of external affair is responsible for negotiation on the law of the sea matters including the 1995 international fish stock agreements

- Department of ocean development that is the nodal agency for implementing the provision of the 1982 united nations convention on the law of the sea(UNCLOS)

Ministry of environment and forest cont.

INDIAN LEGAL FRAMEWORKS

The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976

- Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981 and the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Rules, 1982
- Comprehensive marine fishing policy 2004
- Indian fisheries act, 1897
- Coastal Regulation Zone, Notification January 2011
  - Corrigendum [amendment] to Coastal Regulation Zone Notification, April 1st 2011
- Wetlands (Conservation and Management) Rules, 2010

INDIAN LEGAL FRAMEWORKS cont.

- Important legislation relevant for fisheries and fishing communities, such as Coastal Aquaculture Authority Act 2005,
- The Biological Diversity Act 2002,
- The Wildlife (Protection) Act, 1972 (as amended 2002 and 2006),
- Trade Unions (Amendment) Act 2001, Environment (Protection) Act, 1986,
- Marine Products Export Development Authority Act, 1972,
- Merchant Shipping Act 1958,
- The *Scheduled Tribes* and Other Traditional *Forest Dwellers* (Recognition of Forest Rights) Act, 2006 and Rules, 2007 besides

State fisheries legislation

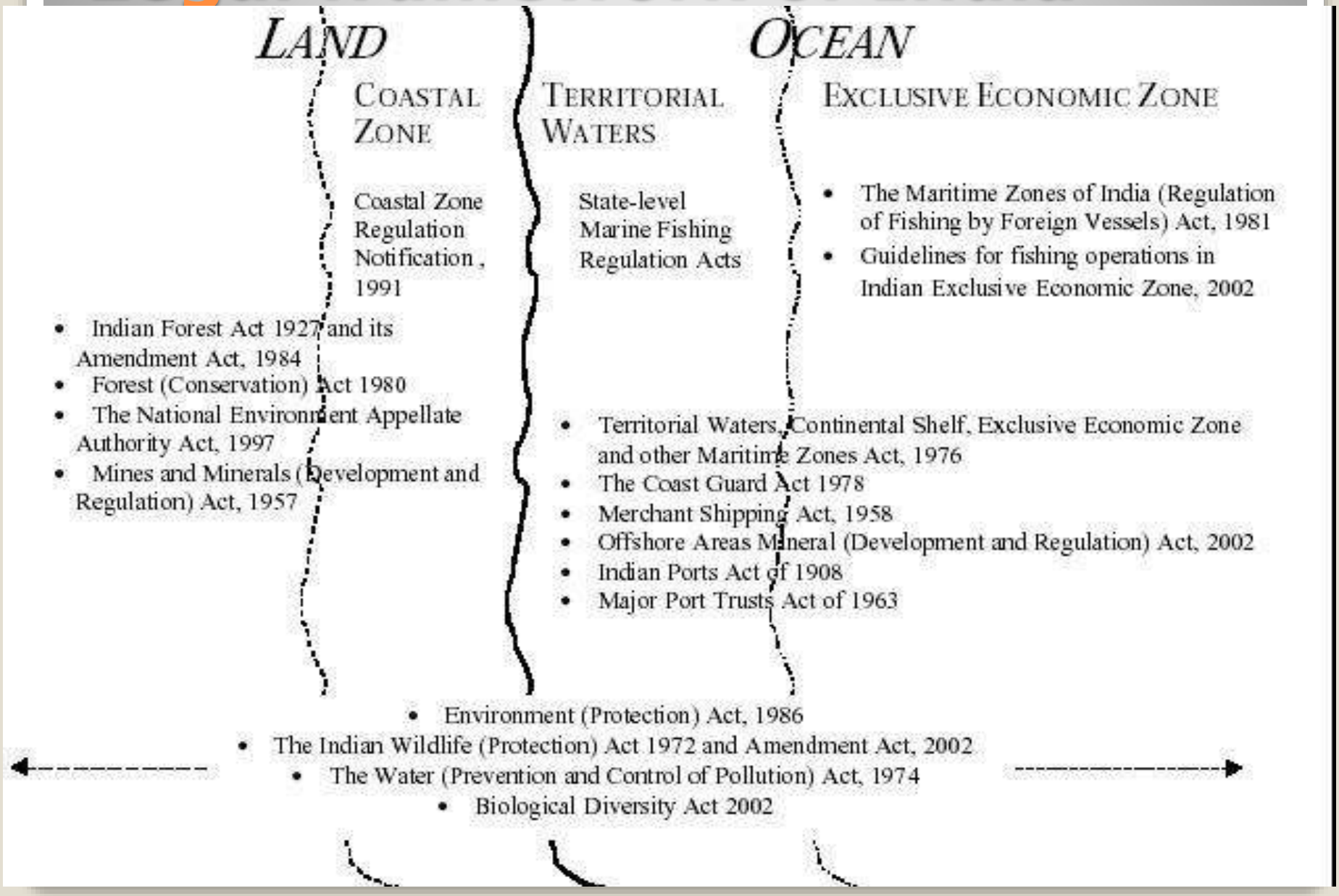
- Fisheries within the 12-mile territorial limits are managed under the Marine Fishing Regulation Acts (MFRA) of the maritime States of India.
- The Act is based on a model piece of legislation prepared by the Ministry of Agriculture, Government of India, in 1979, in response to demand from fishers operating unpowered fishing vessels to protect their fishing space and equipment from bottom trawlers
- Important management measures adopted under the MFRA are prohibitions on certain fishing gear, regulations on mesh size, establishment of closed seasons and areas, demarcations of zones for no-trawling,
- other measures such as use of turtle excluder devices, and designation of no-fishing areas.

States	Year Adopted	Area reserved for traditional craft	Area reserved for Mechanized craft (upto 12 nautical miles)
Gujarat	2003	5 nautical miles (nm)	Beyond 5 nm (9kms)
Maharashtra	1981	5 fathoms (Mumbai, Raigad, Thane) 10 fathoms (Ratnagiri, Sindhudurg)	
Goa, Daman and Diu	1980	2.6 nm(5 km)	Beyond 2.6 nm (5 km)
Karnataka	1986	3.23 nm (6 km)	Vessels upto 50ft beyond 3.23 nm (6 km) Vessels above 50ft beyond 10.79 (20 km)
Kerala Southern sector (1): Kollengode to Paravoor Pozhikkara Southern sector (2): Pozhikkara to Kovilthottam Northern Sector: Kovilthottam to Manjeswaram	1980	Southern sector (1): upto 25 fathoms Southern sector (2): upto 18 fathoms Northern sector: upto 12 fathoms	Motorized fishing zone Southern sector: area upto 20 fathoms Northern sector: area upto 10 fathoms Mechanized fishing vessels less than 25 GRT Southern sector: upto 35 fathom line Northern sector: upto 20

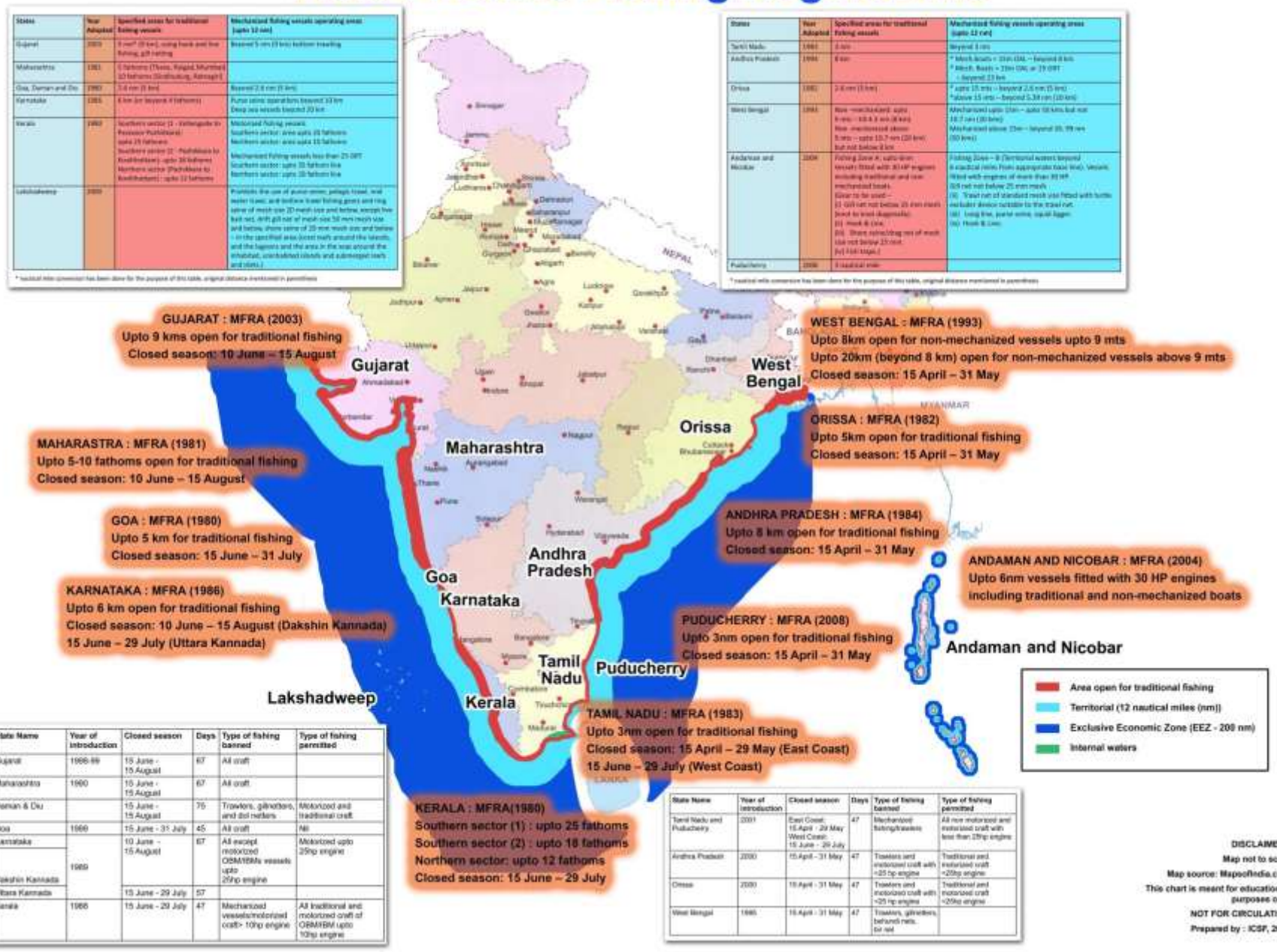
Tamil Nadu	1983	3 nautical miles	Beyond 3 nautical miles
Andhra Pradesh	1994	upto 8 km	*Mech. boats – beyond 8km *20 m OAL and above – beyond 12.4 nm (23 km)
Orissa	1982	2.6 nm (5 km)	* upto 15 mts – beyond 2.6 nm (5 km) *above 15 mts – beyond 5.39 nm (10 km)
West Bengal	1993	Non –mechanized: up to 9 mts – till 4.3 nm (8 km) Non -mechanized above 9 mts – upto 10.7 nm (20 km) but not below 8 km	Mechanized upto 15m – upto 50 kms but not 10.7 nm (20 kms) Mechanized above 15m – beyond 26. 99 (50 kms)

Andaman and Nicobar Islands	2004	Fishing Zone A: upto 6nm Vessels fitted with 30 HP engines including traditional and non-mechanized boats. (Gear to be used – (i) Gill net not below 25 mm mesh (knot to knot diagonally). (ii) Hook & Line. (iii) Shore seine/drag net of mesh size not below 25 mm. (iv) Fish traps.)	Fishing Zone – B (Territorial waters beyond 6 nautical miles from appropriate base line). Vessels fitted with engines of more than 30 HP. Gill net not below 25 mm mesh. (ii) Trawl net of standard mesh size fitted with turtle excluder device suitable to the trawl net. (iii) Long line, purse seine, squid Jigger. (iv) Hook & Line.
Lakshadweep	2000, Rules 2001. Based on notification in 2002	Boat fitted with mechanized engines for propulsion	Prohibits the use of purse-seine, pelagic trawl, mid water trawl, and bottom trawl fishing gears and ring seine of mesh size 20 mesh size and below, except live bait net, drift gill net of mesh size 50 mm mesh size and below, shore seine of 20 mm mesh size and below – in the specified area. (* specified area is coral reefs around the islands, and the lagoons and the area in the seas around the

Legal framework of India



India : Marine Fishing Regulations



State Name	Year of introduction	Closed season	Days	Type of fishing banned	Type of fishing permitted
Gujarat	1988-89	15 June - 15 August	67	All craft	
Maharashtra	1980	15 June - 15 August	67	All craft	
Daman & Diu		15 June - 15 August	75	Trawlers, gillnetters, and dol netters	Motorized and traditional craft
Goa	1988	15 June - 31 July	45	All craft	Nil
Karnataka	1989	10 June - 15 August	67	All except motorized OBM/IBMs vessels upto 25hp engine	Motorized upto 25hp engine
Dakshin Kannada					
Uttara Kannada		15 June - 29 July	57		
Kerala	1988	15 June - 29 July	47	Mechanized vessels/motorized craft> 10hp engine	All traditional and motorized craft of OBM/IBM upto 10hp engine

State Name	Year of introduction	Closed season	Days	Type of fishing banned	Type of fishing permitted
Tamil Nadu and Puducherry	2001	East Coast: 15 April - 29 May West Coast: 15 June - 29 July	47	Mechanized fishing/trawlers	All non motorized and motorized craft with less than 25hp engine
Andhra Pradesh	2000	15 April - 31 May	47	Trawlers and motorized craft with >25 hp engine	Traditional and motorized craft <25hp engine
Orissa	2000	15 April - 31 May	47	Trawlers and motorized craft with >25 hp engine	Traditional and motorized craft <25hp engine
West Bengal	1995	15 April - 31 May	47	Trawlers, gillnetters, beharidi nets, bir net	

DISCLAIMER :
Map not to scale
Map source: MapsofIndia.com
This chart is meant for educational purposes only
NOT FOR CIRCULATION
Prepared by : ICSF, 2011

Closed Season in different states (Co

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FISHERIES MANAGEMENT

Why?

Actions necessary to implement responsible fisheries management.

It is important for fisheries managers to realize that,

- when resources are being over-exploited or exploited in an irresponsible manner,
- a failure to act will have negative consequences in the future
- Reducing fish stocks to biologically and ecologically harmful levels will result in a loss of potential benefits as food, income, employment
- A very low level of any stock is likely to have negative impacts on other dependent stocks, and the losses may extend beyond the immediately affected stock.
- It cannot automatically be assumed that, in such cases, a relaxation of fishing pressure will lead to a full or immediate recovery of the stock and associated ecosystem. In some cases

Effect of Fishing

- Declining availability and biomass of fish species
- Changing in community structure
- Capture mortality of rare and endangered species
- Large catch of juvenile fish
- Degradation and loss of habitat

Threats from fisheries in the habitats

- Twin problems of over-capacity and over-exploitation
- Use of destructive/unsustainable fishing gears and practices
- Pollution from fish processing facilities and small fishing vessels
- Habitat destruction and pollution due to aquaculture
- Illegal fishing

Factors of unsustainability and over-exploitation in fisheries

- Overfishing
- Poor management / insufficient data / inappropriate or poor research
- Habitat destruction and fish mortality caused by inappropriate fishing practices
- Habitat destruction through terrestrial influences/aquaculture
- Environmental influences

caused by factor including

- Too many boats
- Too many gears
- Inappropriate gears
- Inappropriate or non-existent Total Allowable Catch (TAC)
- Lack of political
- Combination of all these factors

Overfishing

Common management tools

- Settling TAC's on the best information
- Fish size limits (mesh size limits)
- Seasonal and area restrictions/closure
- Limiting entry to a certain number of fishing vessels
- Input controls in the form of gear, boat size and power restriction
- Output controls e.g. ITQ's, transferable effort unit e.g. fishing days/nights or transferable gear units

- Risk of unsustainability and over-exploitation
- Risk of economic incentives and dynamics and lead to unsustainability
- Describe many high-sea fisheries
- Describe the "effective" situation in EEZ fisheries

No Management »» »free and open access to fishery resources

Possible Management

- Technical conservation measures »limit mesh size, engine power, fish size, areas and seasonal closure, etc.
- Input control »limited entry (fishing licenses), control other input factors (e.g. vessel size, technology)
- Overall output control (TACs) »calculate total sustainable catch
- Use right (Right-based) »be assigned in terms of catch/effort quotas, areas, recruits (size limit)
- Market measures »resource rents, tax, fish trader license, reduce economic incentive
- Co-management »sharing of management responsibilities between state and communities/stakeholders (CBFM)

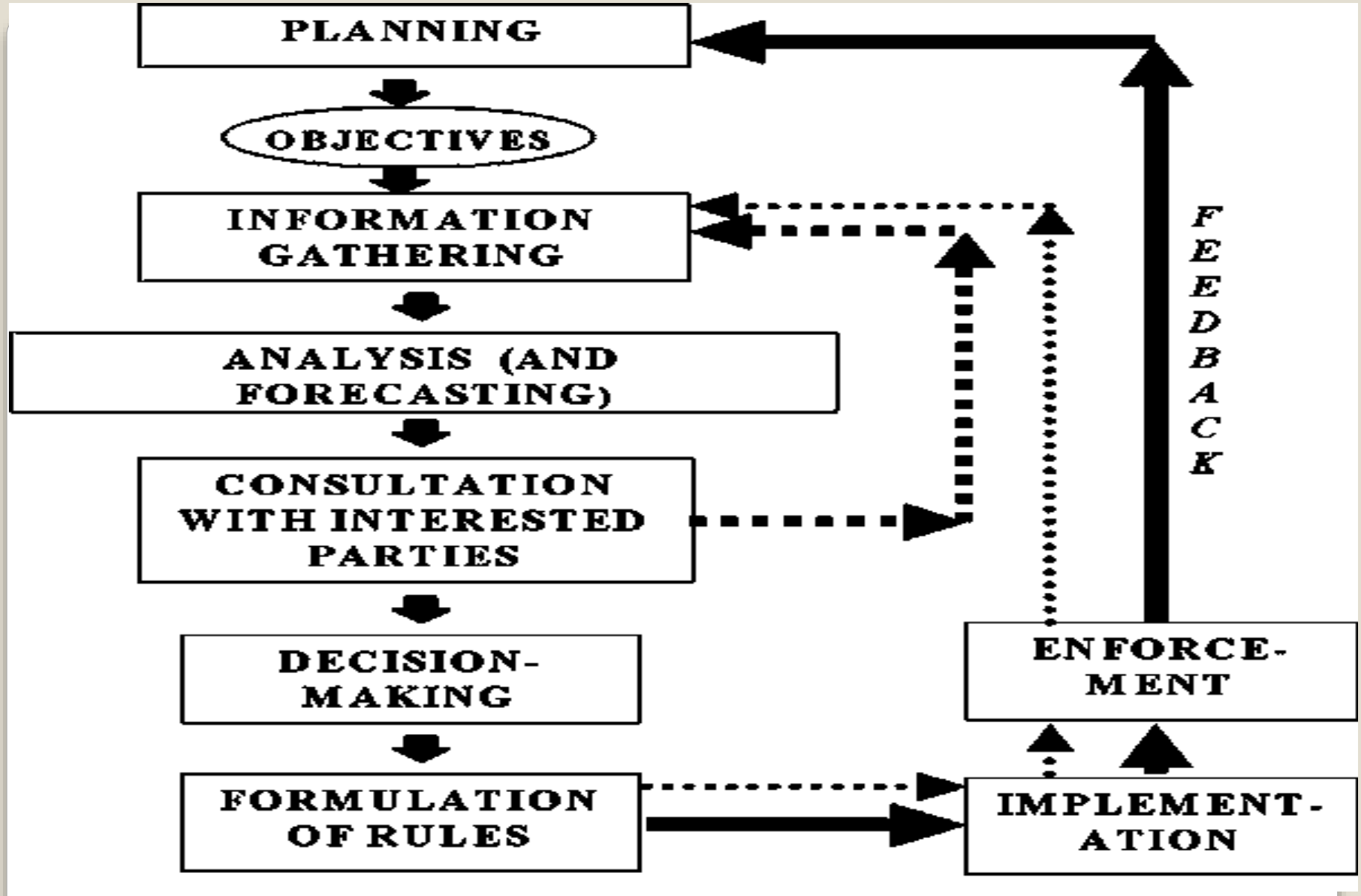
WHAT IS FISHERIES MANAGEMENT?

There is no clear and generally accepted definition of fisheries management.

- "The integrated process of information gathering, analysis, planning, consultation, decision-making, allocation of resources and formulation and implementation, with enforcement as necessary, of regulations or rules which govern fisheries activities in order to ensure the continued productivity of the resources and the accomplishment of other fisheries objectives

It can be seen that fisheries management involves

- a complex and wide-ranging set of tasks,
- which collectively have the achievement of sustained optimal benefits from the resources as the underlying goal.



the functions and responsibilities of a fisheries management authority in relation to fishing, and the inter-relationships between the functions.

The Need for Fisheries Management

- Fisheries have substantial social and economic importance.
- It is estimated that 12.5 million people are employed in activities related to fishing and the value of fish traded internationally has been estimated at US$ 40 billion per annum for the early nineties.
- The total production from capture fisheries and aquaculture during the same period reached and oscillated around a total mass of 144 million tons.
- At present, a large proportion of the world's exploited fish stocks are fully exploited, over-exploited, depleted or in need of recovery and
- many are affected by environmental degradation, particularly in the inland and coastal areas.
- Major ecological damage, which may not always be reversible

The Need for Fisheries Management

- New technological developments to enhance the ability of fishers to exploit more living resources
- The world's living aquatic resources is largely a result of a failure of the present process of fisheries governance to achieve responsible and effective management of fisheries in most countries.
- Fishers, fisheries management authorities and fisheries scientists, as well as those responsible for indirect impacts environmental degradation
- It is the States' responsibility to ensure that joint measures are taken to reverse these trends.

- In a country like India with an active fishers population of over a million without meaningful alternative jobs
- A fishing fleet comprising over 100000 smaller fishing vessels also fishing in the EEZ
- Fisheries conservation and management regimes cannot be proposed for the EEZ
- The different fisheries legislation should propose a paradigm shift in India's prospective and deep sea fishing by enabling through training and capacity building
- The central and state government should provide greater cooperation to fishing operation and fisheries management regimes in all water bodies

conclusion


Thank You!