

## Framework characteristics-1

- Conceptual and methodological
- Sustainability and management science foundations
- Complex social-ecological systems
- Integrative forms of knowledge and social learning
- Adaptive management
- Institutional issues
- Inter-disciplinary analysis
- Participative processes
- Integration of advisory processes with decision-making
- Empowerment of fishing communities.

## Framework characteristics-2

- Conceptual and operational, non-prescriptive, systemic
- Demand-oriented , problem-oriented, process-oriented
- Participative, using multiple sources of evidence
- Interdisciplinary, privileging integrative modes of inquiry
- Combines historical, comparative and experimental approaches
- Combines qualitative and quantitative methods
- Considers multiple scales of analysis
- Accounts for uncertainty
- Continuously improves and tests knowledge
- Provides a performance-driven environment.
- Looks for anticipated sets of adaptive responses
- Looks for enhanced capacity of reaction
- Contributes to capacity-building

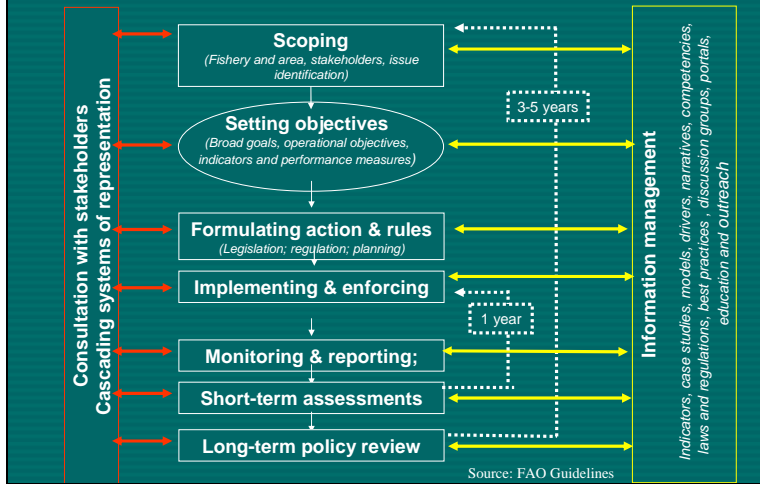
## Sources of inspiration

- Conventional stock assessment (single or multiple species level)
- Multi-criteria decision analysis
- Integrated environmental assessment (MEA)
- Environmental Impact Assessment (EIA)
- Qualitative and quantitative risk analysis and management
- Analysis of rural livelihoods
- Policy analysis
- Cost benefit analysis
- Vulnerability analysis
- Complex systems theory
- Risk management theory
- Etc..

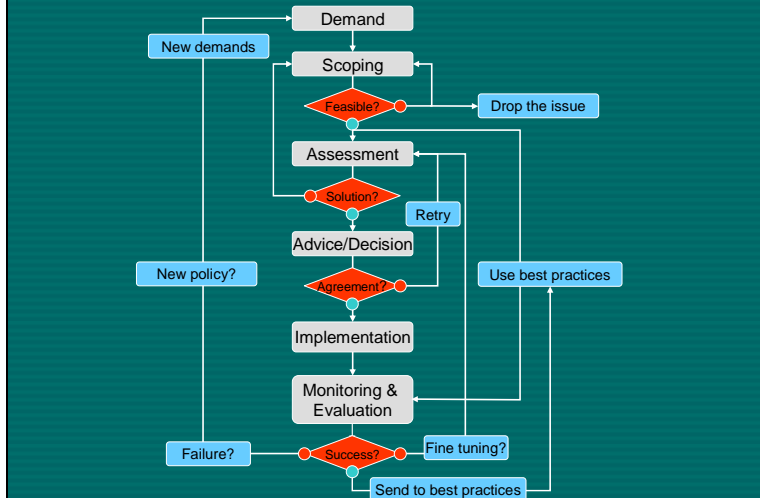
# Connection to other frameworks

- Code of Conduct
- Sustainable development and ESD
- Ecosystem Approach to fisheries
- Precautionary Approach to Fisheries
- Rights-based fisheries management
- Co-management
- Ecosystem conservation.
- Conventional fishery management
- Traditional fishery management
- Area-based integrated management
- Integrated rural development
- Integrated conservation and development (ICAD)
- Interactive governance
- Common property resource managt.
- Sustainable livelihoods programs
- Poverty reduction strategies
- Resilience-based management

# Planning & management process

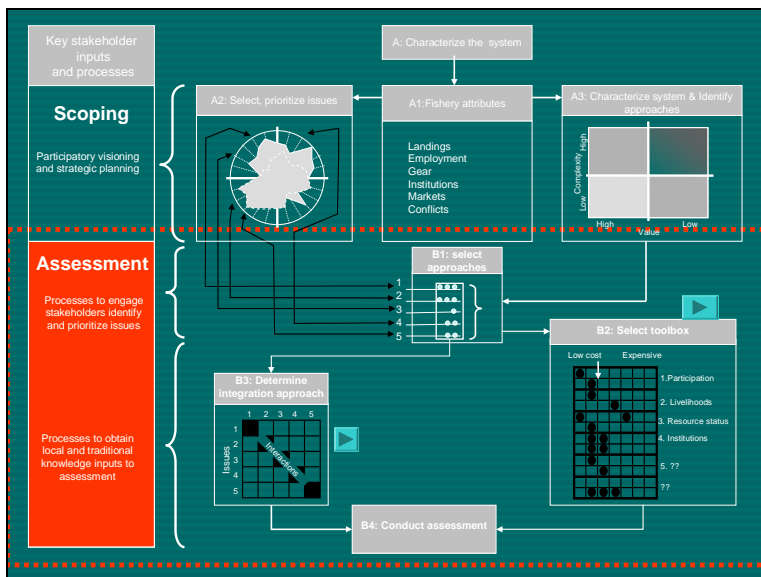
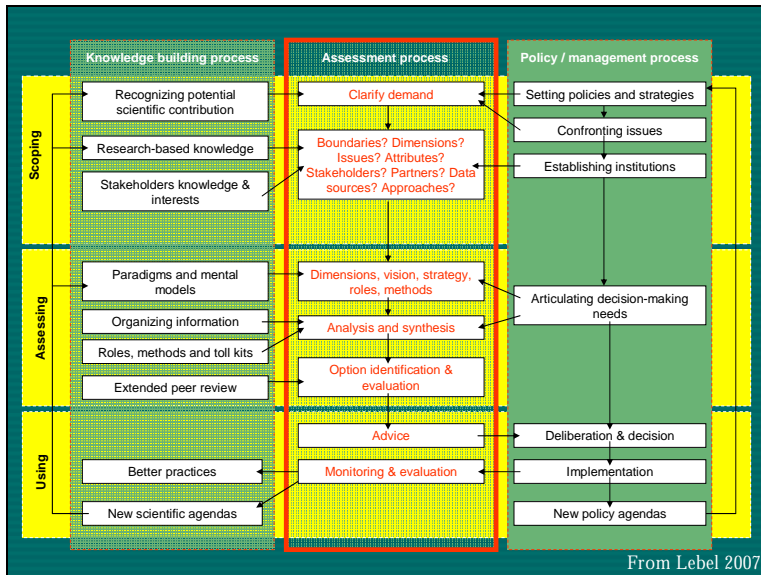


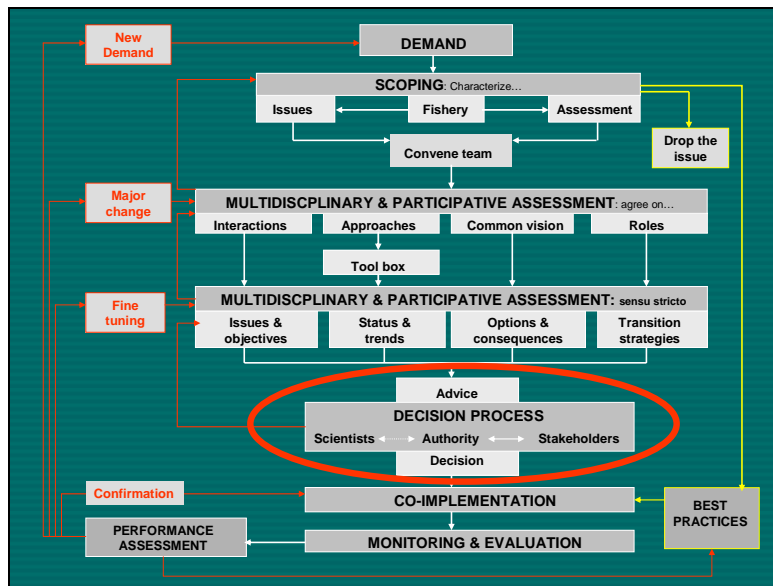
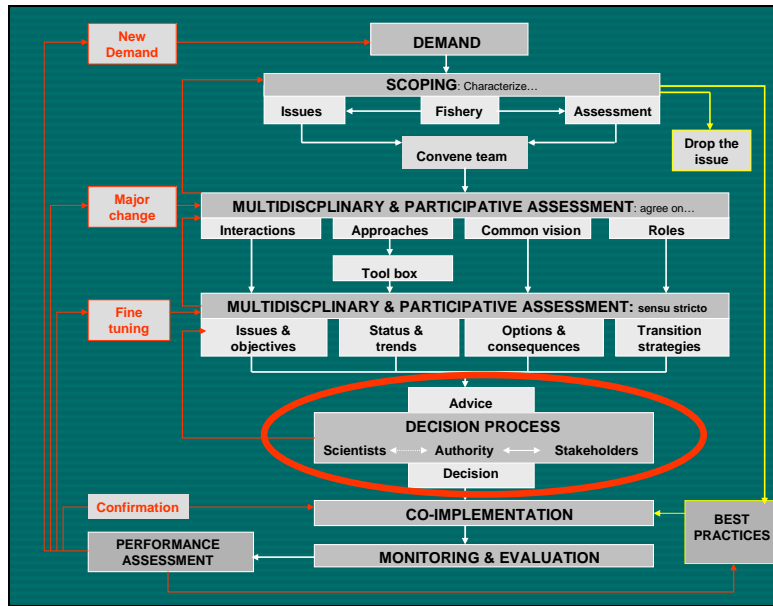
# The integrated assessment process



# Single versus recurrent assessment

Characteristics	Single assessment	Recurrent assessment
Trigger	Crisis	Management & Planning process
Time schedule	Unplanned, urgent	Planned, formal schedules
Predictive horizon	Short term	Medium to long term
Data sources	Existing	Existing + new data
Character	Operational	Strategic
Monitoring	Usually not foreseen	Institutionalized
Resources	Available	Available + additional





## Some cross-cutting issues...

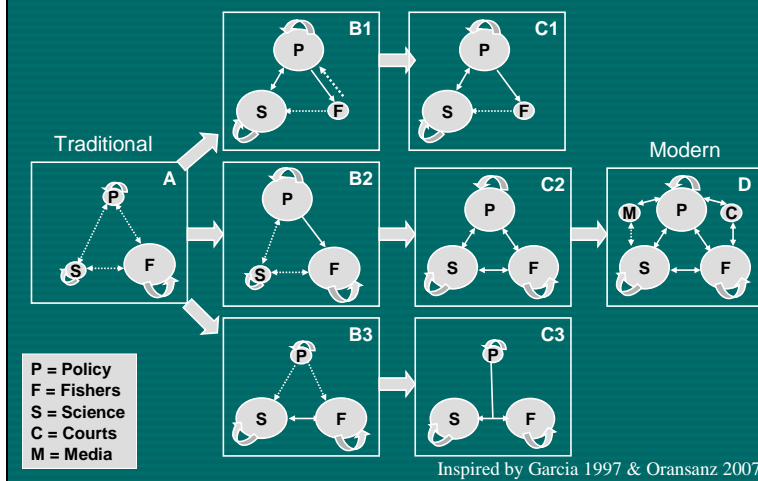
- Competition with existing frameworks
- Recurrent costs
- Simplification .
- Pilot testing and up scaling
- Optimizing participation
- Dosing complexity
- Capacity-building at central and local levels
- Auditing system
- Developing the background research

# The integration challenge

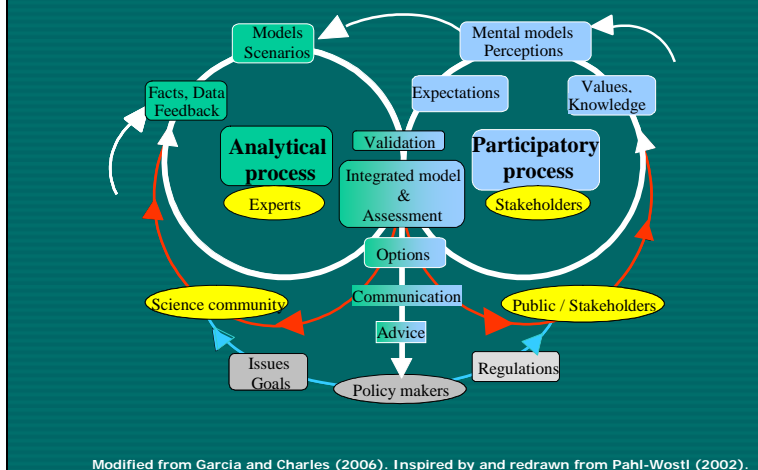
## Between:

- Science and policy
- Policy and society
- Natural and social science disciplines
- Scientific and traditional knowledge
- Quantitative and qualitative analyses
- Facts, values and perceptions
- Assessment, advice, monitoring and evaluation

## Governance triangles



## Integrated Advisory Process



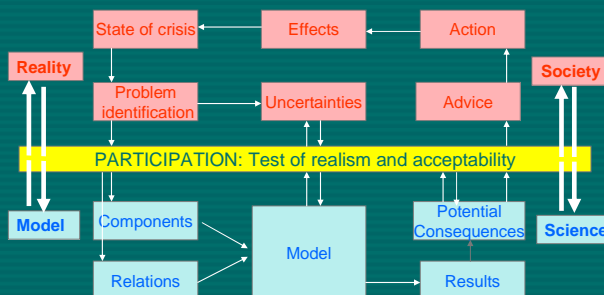
# Integrating disciplines

PHASES	OBJECTIVES			OUTPUTS
	Biodiversity	Valuation	Livelihoods	
SCOPING ↓				JOINT RESEARCH QUESTIONS AND ASSESSMENT PLANS
DATA COLLECTION FIELD SURVEY ↓				JOINT COLLECTION COMMON KNOWLEDGEBASE
DATA PROCESSING AND ANALYSIS ↓				INTEGRATED MODELS, OPTIONS AND SCENARIOS
PRESENTATION TO MANAGERS AND STAKEHOLDERS ↓				INTEGRATED IMPLEMENTATION
MONITORING & EVALUATION				INTEGRATED M & E

# Role of participation

- Increases ownership, relevance, legitimacy
- Empowers the actors;
- Facilitates consensus and mobilization;
- Enriches the knowledge base
- Underlines expectations and perceptions
- Improves problem formulation & solution
- Improves conflict resolution & equity
- Reduces social & economic risk
- Increases transparency, public scrutiny

# Participation

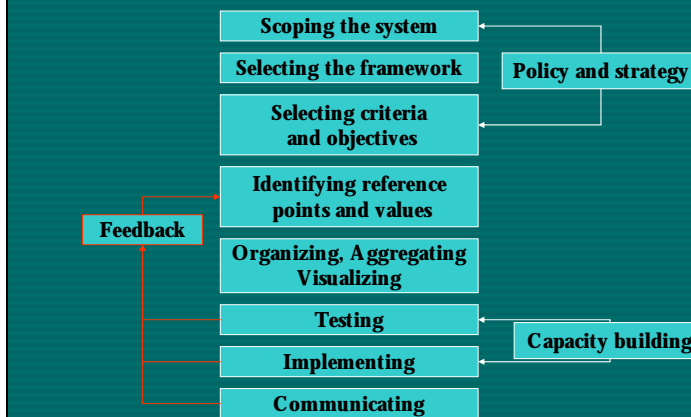


## Assessment characteristics

	Conventional assessment	Participation
<b>Purpose</b>	Decision support	+ empowering people
<b>Goals</b>	Predetermined, highly specified	+ Flexible, evolving
<b>Approach</b>	Objective, standardized, disciplinary	+ Subjective, contextual, interdisciplinary
<b>Modes of operation</b>	Extractive, distance from subject, focus on information generation,	Empowering, participatory, focus on human growth
<b>Decision</b>	External, centralized	Joint, locally with/without facilitator
<b>Methods</b>	Few, standard, quantitative, computer models	Many, loosely defined, qualitative (ranking, drawing), games
<b>Science role</b>	Controller, expert, dominant	+ facilitator, catalyst, partner
<b>People role</b>	Targets, respondents, passive, reactive	Source of knowledge, active, creative
<b>Ownership</b>	By State and technocrats.	By local people, shared
<b>Output</b>	Unavailable Recorded reports, pubs, policy options, scenarios, measures, evaluation	Non recorded, local knowledge- & capacity-building,
<b>Outcome</b>	Policy and management change	Social learning, improved compliance

Modified from Narayan 1996 in Pomeroy and Rivera-Gutieb, 2006: Box 7.3

## Indicators implementation process

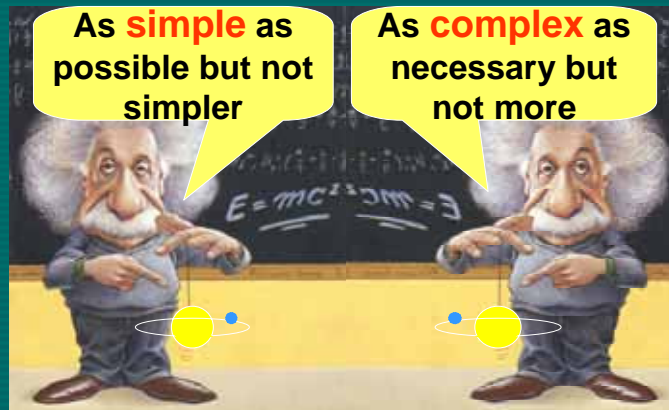


## Role of simulation models

- Materializes understanding
- Recreates system dynamics
- Helps testing theories
- Helps forecast and introduce precaution
- Mobilizes, structures stakeholders' dialogue
- Improve foresight
- Provides role games
- Promotes social learning
- Helps merging disciplines
- Helps reformulating societal demand

But a strong role for the “human computer”

# Simulation models

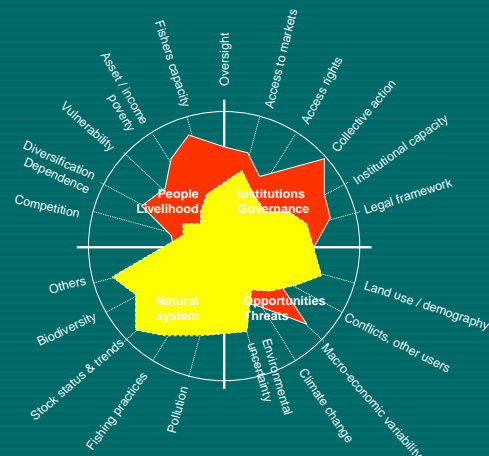


## SUPPORT GROUP

<b>Allison</b> , Eddie	<b>Leemans</b> , Ingrid
<b>Andrew</b> , Neil	<b>Mahon</b> , Robin
<b>Arthur</b> , Robert	<b>Marrul</b> , Simão
<b>Arthur</b> , Robert	<b>Mees</b> , Chris
<b>Baran</b> , Eric	<b>Neto</b> , José Dias
<b>Béné</b> , Chris	<b>Nguyen Khoa</b> , Sophie
<b>Bensch</b> , Alexis	<b>Oransanz</b> , Lobo
<b>Bianchi</b> , Gabriella	<b>Parma</b> , Ana
<b>Bjoru</b> , Kirsten	<b>Petralli</b> , Nila
<b>Charles</b> , Anthony	<b>Piraz</b> , Laura
<b>Davy</b> , Brian	<b>Ratner</b> , Blake
<b>De Graaf</b> , Gertjan	<b>Reynolds</b> , Eric
<b>Fletcher</b> , Rick	<b>Siar</b> , Susanna
<b>Garcia</b> , Serge	<b>Staples</b> , Derek
<b>Gomez</b> , Edgardo	<b>Strømme</b> , Tore
<b>Hall</b> , Steve	<b>Sugiyama</b> , Shunji
<b>Hjörleifsson</b> , Einar	<b>Supongpan</b> , Mara
<b>Horemans</b> , Benoit	<b>Tomasson</b> , Tumi
<b>Hoshino</b> , Eriko	<b>Townsley</b> , Philip
<b>Kalikoski</b> , Daniella	<b>Sholtz</b> , Uwe
<b>Jul-Larsen</b> , Eyolf	<b>Vasconcellos</b> , Marcello
<b>Kelleher</b> , Kieran	<b>Williams</b> , Meryl
<b>Kurien</b> , John	<b>Willmann</b> , Rolf

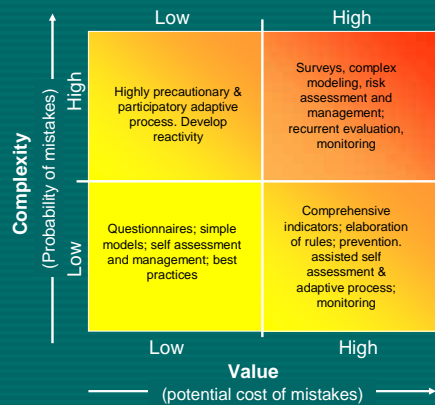
MANY  
THANKS  
FOR YOUR  
SUPPORT  
AND  
ATTENTION

## Selecting and prioritizing issues

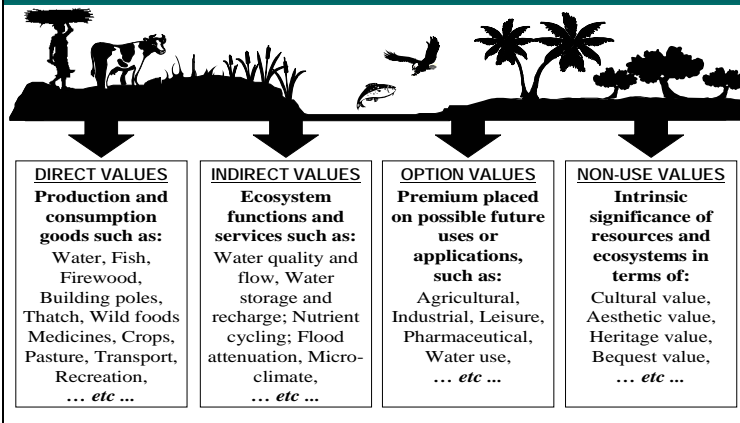




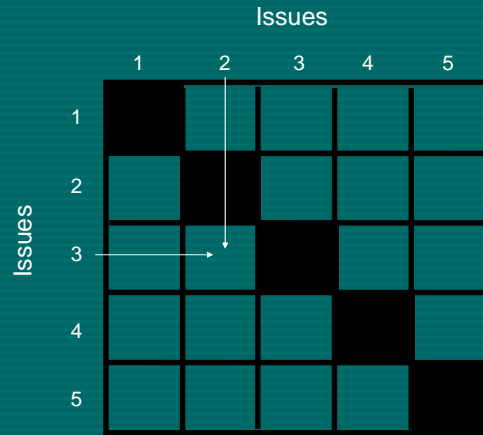
# Characterizing approaches



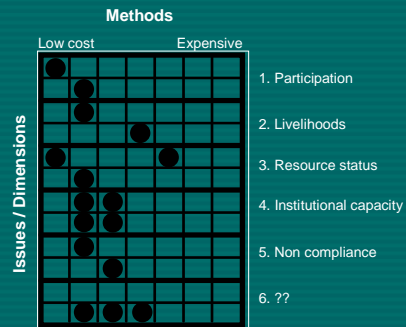
# What values and for whom?



# Connecting issues and dimensions



# Selecting approaches and tools



**A Workshop on Toolbox for Applying the Ecosystem Approach to Fisheries was held in Rome, Italy, from 26 to 29 February 2008, to systematically find out what tools are available for implementing the ecosystem approach to fisheries, assess their usefulness and applicability, particularly in less developed countries, identify what tools are needed but are not yet available, how they should be developed and the potential role of FAO and other partners in their development. The workshop was attended by twenty-six participants representing different disciplines and expertise. The last session of the workshop was devoted to a discussion on the appropriate framework for the toolbox and on possible next steps.**

ISBN 978-92-5-106321-7 ISSN 2070-6987



9 789251 063217

I0946E/1/07.09/1