Pathways for a knowledge based governance in fisheries

Denis Bailly

University of Brest (UBO)

European Institute for Marine Studies (IUEM)

UMR – AMURE, Centre for the law and economics of the sea

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SIXTH FRAMEWORK PROGRAMME

Science and Policy Integration for COastal Systems Assessment

SPICOSA (integrated project under 6^{for}FP)

Science and Policy Integration for COastal Systems Assessment

Rethink the role/place of research in policy processes and test innovative ways to harness scientifc knowledge to policy based on integrative approaches:

- Multidisciplinary in research,
- and participatory with managers and stakeholders

“Coastal systems” can be changed for ocean, regional seas... or fisheries systems

- « **Governing the Commons** » (Ostrom, Kooiman,…)

Most of environmental problems and harvesting of many natural resources pertain to the category of the commons because it is very difficult to avoid unwanted/unnegotiated interdependances among individuals (supposedly dealt with by private property) and also because it is very difficult to provide efficient external coordination among users in an administered way (control and command based). The second from both cost and social acceptance sides.

So, the need for dedicated institutions (organisations and processes) that codifies the uses and deals with the dilemma of commons: « voice or defect », « cooperate to sustain or collapse by competing » (live in permanent crisis and depend on subsidies). And the benefit of empowering and entrusting the stakeholders.

Complexity and the system approach

(Forrester, Meadows, Holling,…)

Address complexity by focusing at feedback loops, non linearities, thresholds, uncertainties rather than further separate the « parts of the whole » in the exploration of the world. Search for operational understanding by thinking in terms of dynamics, external forcing and internal drivers or controls; shifting a component from one category to the other when changing scale.

When challenged by internal or external disruptive processes, complex system use their capacity to mobilise information to either express resilience potential or to ease adaptation to change. No difference between the ecosystem and the sociosystem.

Polycentric and interactive governance (Ostrom, Kooiman, Jentoft,…)

Collective efficiency to reach MSY or MEY is not an easy to grasp objective. In making collective choices, people negotiate about the distributional issues or trade-offs associated with different policy options, about the preservation and recognition of their identities, about avoiding costs and risks of having to adapt to change. This makes it a very complex task to convince and to obtain cooperative attitudes, key to reduce transaction costs.

Multi-level governance is needed as well as intense communication in socio-ecological systems like fisheries.

A typical debate in fisheries: the economist suggest a fix for the problem. Create individual rights, resource based, and make them transferable. Fix the TAC on a the basis of a bio-economic evaluation, with the MEY as the policy target. Fishermen will be rich and happy (rent restaured), fish stock at even higher level than under MSY target.

Suppose you have managed to convince big guys in the industry and the administration. You still have the problem of building a consensus on the diagnosis and ensure that the rights you are up to create will not jeopardized by non cooperative behaviors that are difficult to observe and sanction (by catch, discarding, high grading). You also have to deal with the distributional issues that do not pertain to the sole criteria of efficiency.

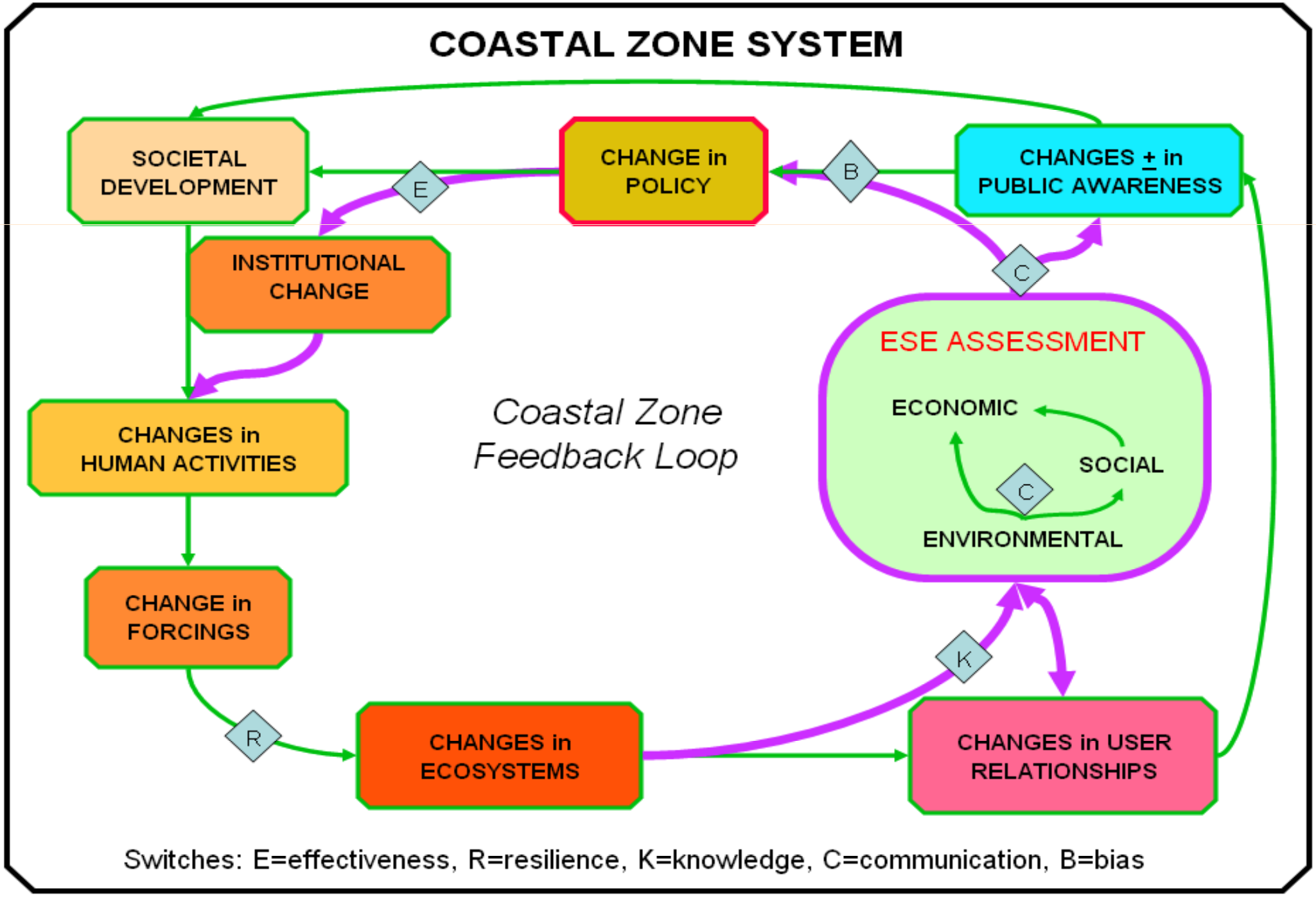
- The notion of right based management is clearly key to the problem. Debates about resource/effort/terrorial rights, about individual versus collective rights and about transferability are not anecdotic.

- But it is not only a case of comparing advantages and disadvantages of alternative management tools. It is a serious case about how we govern the mecanism of allocating access rights to resources among different users not necessarily sharing same interests and identities.

- The need for collective action/negotiation will remain, even under a generalized ITQ system. This raises the question of how do we organize it. Its governance and the communication that goes with it.

Integrated assessment is promoted in many places but what for and how ?

Mutidisplinary assessment : Socio-ecological modelling or Ecological, Social and Economic Assessment


COASTAL ZONE SYSTEM
SOCIETAL DEVELOPMENT
CHANGE in POLICY
CHANGES ± in PUBLIC AWARENESS
INSTITUTIONAL CHANGE
ESE ASSESSMENT
ECONOMIC
SOCIAL
ENVIRONMENTAL
CHANGES in HUMAN ACTIVITIES
Coastal Zone Feedback Loop
CHANGE in FORCINGS
CHANGES in ECOSYSTEMS
CHANGES in USER RELATIONSHIPS
E
B
C
C
K
R
Switches: E=effectiveness, R=resilience, K=knowledge, C=communication, B=bias

What does holistic mean: address complexity or 1:1 modelling? The system approach favors low resolution representations to detailed, analytical ones (up-scaling).

If negotiation is about distributional impacts, discussion over ITQs or other instruments with major restructuring potential will turn into a battle field if efficiency is the only dimension documented. Explore ex-ante the distributional consequences and monitor compensation mechanisms.

It is exhausting to build a multidisciplinary consensus on a diagnosis, but this is worth nothing if not shared with other actors. Why not simply build it together in sequence.

We all think with models, as reduced/low resolution images of the world, under different perspectives and with different means of expression.

In research, the model, mathematically or litterary expressed, stands for itself; it is the core of a demonstration or at least an essential way to expose it.

When getting involved in the policy process, the model is only instrumental and the criteria to judge its quality is in its capacity to facilitate communication, mutual understanding. The message, and capacity to pass it accross is essential.

Clearly separate in organisational terms, including evaluation, carreers and all forms of norms and incentives in research:

-**The research work**, with its objective of creating information and knowledge, and the diversity of ways to do so (observation in controlled/experimental or in open/real conditions, deductive or inductive, empirical or theoretical, mathematically or litterary expressed)

- **The service** of contributing to design, monitoring, assessment of public policies or collective action. The « intellectual » contribution of reflecting on the possibilities to anticipate and influence the future. An expertise/capacity that industry, administration and NGO are also very rapidly developing on their own.

The move is towards **integrating fisheries into the ecosystem management**, like the environment and natural resources differentiation that was very instrumental in teaching economics is challenged by the ecosystem good and services approach (another economic disctinction)

The resources needed for fisheries governing institutions like the RAC to deliver a service appreciated by all parties calls for them to become a component of the regional seas/oceans governance structures that will probably harden in the near future under the rise of environmental concerns.

Get ready for the challenge of fisheries to stand under the umbrella of marine ecosystems management that will norm discourses and course of action, with « conservation » reaching far beyond specific economic interests of commercial fisheries.

If mutual understanding needed for real communication is not seriously built accross all the fisheries system components, then many claims will turn into « against fisheries political plots ».

This includes research communities, but should also irrigate all educational efforts we may develop

When you deal with mixed fisheries, not only different species, but also different gear groups, a strong feeling of community or national appartenance, different languages, different rational (family business, corporate business, recreational operation)

The sense of individual versus common interests is socially well grounded but easily misplaced. What is conceived as strategic coalition is self-defeating in terms of conservation goal.

Can we improve that by an **educational effort** directed towards fishers and manager. Develop professional training programmes.

Specific **communication means** still need to be developed and spread. This is an issue:

- for differentiating variables that we use to explore the world and indicators to be used to communicate about it. What about participatory process to design them.

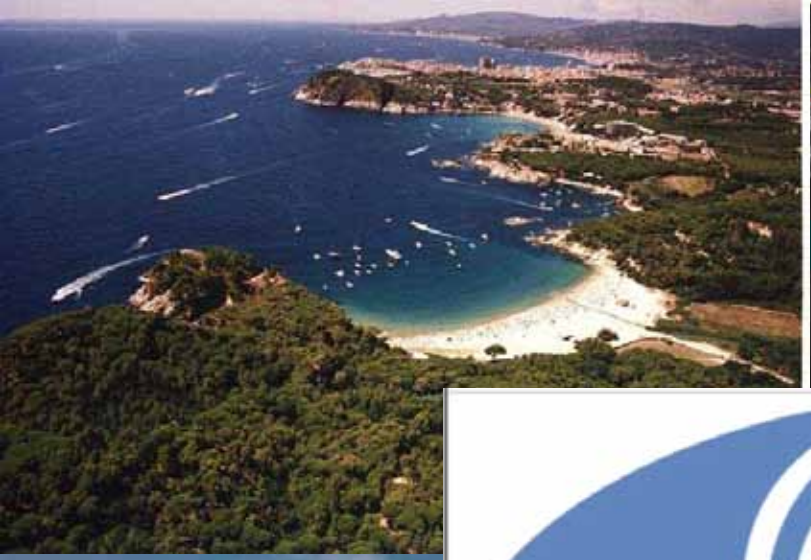
- for facilitation more than about fancy dynamic/interactive ITC based communication. We must identify (and pay for) facilitation expertise. It can be found among researchers, managers or fishers. But it should be trained also as a professional profile. Many training exist in facilitation for conservation, water management or ... airport, highway construction. Too few in fisheries. Probably because of limited job opportunities.

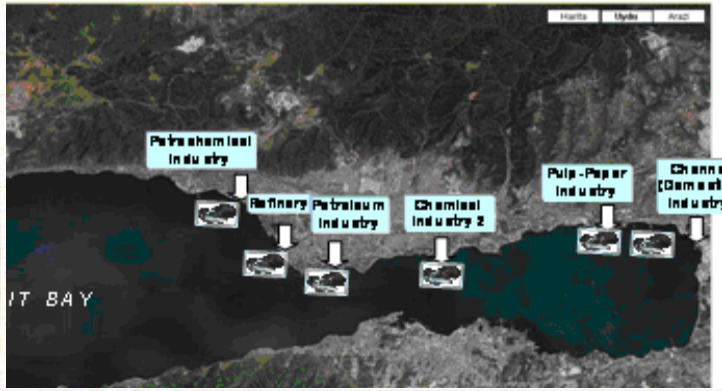
Last but not least,

do we need more **research on the social aspects** of fisheries management (including economics as well as research on governance)? Do we consider that most problems are well understood and expressed, so the effort should be about training those who are involved in management to share this understanding ?

what kind of thinking revolution is needed for social scientists to play the game of voicing under interactive governance, and do we need them there? Probably not all at the same place. What organisation and resources to produce information that really helps?

Social scientists are researchers, not natural facilitators!

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