

These session O Governmental Quality and Risk Management

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Session synopsis

Fisheries research aims towards a better understanding of fish resources and ecosystems to improve risk management. Management uses this information for management decisions and discussions on the sustainability of resources and the viability of their exploitation. The quality of the fisheries management, however, depends as much on the extent to which principles of good governance are addressed (transparency, accountability, effectiveness, coherence, participation). This holds especially for the way in which risks are assessed, communicated and handled in a transparent and understandable way with stakeholder involvement.

ICES fisheries advice has traditionally focused on single harmful event, like impaired recruitment. However, there is a need to move towards ecosystem approaches and interdisciplinary risk assessment, which would increase the likelihood of using risk related information in communicating with stakeholders. In a risk assessment context the scope of events is broadened and given weight not only related to the probability or likelihood of a biological event, but also from the social and economic magnitude of the consequence. Measures of consequence can range from fairly simple ones as loss of yield (in tonnes) to socio-economic consequences like lost jobs and community decline.

In this theme session we welcomed contributions that:

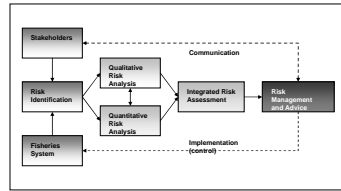
- Elaborate on the principles for good governance to come up with testable criteria for governmental quality in fisheries management situations, going from problem identification via information handling, including risks to tackle, to evaluation;
- Explore the extent to which governmental quality is to be guaranteed in progressive, science-based and more evaluative, adaptive management strategies, addressing inevitable risks involved;
- Give guidance to attempts to improve the transparency of the management process and to enlarge the legitimacy of the decisions taken;
- Specify how risk assessment enables the production of useful management advice in a situation with large uncertainties, thereby guaranteeing governmental quality as well;
- Report on interdisciplinary analysis of fisheries systems, including analysis of the understandability of risk related information
- Determine whether risk assessment and management is properly and effectively applied in the precautionary approach of ICES and how this can be improved on
- Sketch possible practices in risk identification and risk communication as participatory processes, addressing stakeholder participation and commitment to use scientific information as a governmental quality.

The theme session took place on Friday September 26. A total of 8 posters and 16 oral presentations were given, including two invited speakers:

- 1) Jan van Tatenhove - Environmental Policy Group, Dep. of Social Sciences, Wageningen University: presentation O:17
- 2) Bonnie McCay – Dep. of Human Ecology, Cook College, Rutgers the State University: presentation O:16

45 Minutes were used for a discussion at the end of the session.

The elements of risk management



PRONE project/S.Kuikka.

The elements of Governance



“process of decision-making and the process by which decisions are implemented....or not”

Fisheries Science in a world that is rapidly changing

Increasingly, claims are made on the resources that our oceans provide, including fisheries, oil and gas exploration, recreation, sand and gravel extraction, mining, waste disposal and transportation. This increase in stakeholders and associated claims lead to new institutional arrangements and new balances of power that also affect the role of science in the decision making process. The RAC, co-management and the MSC initiative are examples of these. (O:17)

This development emphasizes the need for conflict resolution mechanisms and decision making processes that adhere to criteria for good governance (transparent, accountable, inclusive, participatory): Many of the fishery problems we face today are rooted in the human factor i.e. the quality of the decision process. Lack of information or unequivocal information is important to the decision process. However, the question is how “decision making quality” is related to the “quality of information”.

Thematic overview of presentations: Participation, transparency & trust

Many of the presentations emphasized the need for participatory approaches, especially the inclusion of fishermen in scientific fishery management projects.

The general impression was that such participatory approaches provided the transparency needed to build up trust and added to the legitimacy of resulting management actions. The classic view of science being “objective” was discussed versus participatory approaches emphasizing “transparency” and “inclusiveness” (O:08). The use of FEK (fishers’ ecological knowledge) was shown to be important to this, as an addition to SEK (scientific ecological knowledge). (O:04) The role of science in such a participatory setting placed more emphasis on communication and as an aid to explore (with stakeholders) and evaluate scenario’s and harvest control rules (O:08, O:07, O:10).

When pursuing participatory approaches and collaborative research, it is important to do so at the very start of a project. The adagio is: “do it early, do it right, and find out why/how various stakeholders appraise risks”. Perceived risk may differ from risk assessed, and costs and risks are seldom spread evenly among stakeholders (O:16). Adaptive and participatory approaches are crucial to proper risk appraisal and risk can be reduced through structural design measures that shift fishery management to become more “robust” to the structural uncertainty that pervades fishery (O:05).

In addition, it was argued (O:12) that it is important that stakeholders knowledge and roles are taken seriously: (1) equal partners, not just chartering; (2) allows for FEK; (3) collaborative research is science to be used, not a competing source of input to management or a welfare program. i.e., do not pre-cook management strategy evaluations (science develops and evaluates alternatives in isolation) but do so in a process in which stakeholders are included

into the process (web based collaboration, meetings: transparency). Develop alternatives and discuss the trade offs (satisficing). Move away from ad hoc management. (O13) Fishers may not want to be included or valued, which undermines the legitimacy of management (O15).

Novel approaches to risk appraisal

Several of the presentations highlighted novel methods to risk appraisal or risk management. In all of these, risk communication was central to the approach:

- O:14 – A risk assessment method was presented that can be used for multiple stocks (in this case Fraser River Sockeye stocks) of which limited quantitative information is available. Risk approximations are used to describe the impact and spread in terms of confidence of judgment. These are summarized in overview plots that outline severity (stock situation) versus uncertainty (confidence in conclusions). It was shown that the public debate tends to focus on severe situations where data availability is ample: “out of sight, out of hart”
- O:06 – Differences in risk perception amongst stakeholders were analysed using a “mental modeling” approach. Results indicate that risk perceptions vary widely among countries and fishery systems.
- O:02 – Proposal to use a “Fishery Analysis Spreadsheet” that summarizes the basic information needed for management actions and evaluation of alternatives along 4 dimensions (biology, economy, social aspects and administration). Data on indicators is presented by means of standard utility curves and radar plots.
- O:03 – An insurance system for fishermen was presented to prevent pressure on fishers to over exploit declining stocks and is an example of making management more robust. A evaluation through simulation of a fishery insurance scheme indicated that the approach may may promote good practice and improved implementation by reducing short-term incentives to over exploit when a stock is declining, The next step would be to develop some examples or pilots to show to fishers how it works. The insurance system however, requires healthy stocks and effective enforcements.
- O:09 – “Value of Information” can be used as a tool to determine the allocation of resources required to obtain information to be used in the management process.

Conclusions

The theme session brought together participants from a range of disciplines and discussions covered how to change the current system to make it more robust to uncertainty in model, implementation, and institutional uncertainty..

Recommendations

- 1) The challenge is to include activities other than fisheries in a science process: ICES activities now are very much focusing on fish and fisheries. From this, we recommend to organize sessions that explicitly address effects of multiple activities.
- 2) Participation, transparency, trust and accountability are factors that determine the degree to which science is used in the management decision process and policy making. ICES should develop guidelines for “good practices”. A session that contrasts various approaches to organize participation and transparency, and its effect on management, could be used as a base for this. All these features can also be improved, if ICES could be even more active in publishing scientific findings in various stakeholder magazines.

- 3) We recommend that ICES sessions reserve for ample time for discussions at the end of sessions. The “question time” left at the end of individual presentations is insufficient for effective and productive discussions.