
Comments on the role of objectives in fisheries management.

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The paper by Marasco and Miller contains four basic messages. First, fishery management objectives are multifaceted, include political and economic factors, and are not "scientific" *per se*. Decisions, and therefore management objectives, are political. Science can inform decision-makers but does not establish the objectives. The second message is that Councils do not establish polished and unambiguous objectives at the outset of a planning process, but rather objectives emerge as outcomes of the plan development process. Written objectives at the initial stage of Fishery Management Plan development tend to be, like those in the Magnuson Fishery Conservation and Management Act (MFCMA), grandly stated, but vague and inconsistent. The authors provide a realistic description of Regional Fishery Management Council decision-making, noting that management problems are "ill-structured", that Council members operate under conditions of limited rationality, and that many of the management decisions involve shifting benefits among competing groups.

Third, drawing upon the theory of organizational decision-making, Marasco and Miller argue that the classical view of technical decision-making, which makes a clear statement of objectives the first order of business, is not applicable to the decision environment of Fishery Management Councils. The authors contend that fishery councils cannot, and should not be expected to enunciate clear objectives to guide evaluation and selection of alternative management approaches. Finally, they submit four propositions for applied fisheries science which, they claim, would assist applied fishery science to play a major role in helping fishery managers to "muddle through". They recommend that scientists (a) use a multidisciplinary (holistic) approach, (b)

assign proper disciplinary expertise to research topics, (c) avoid inter-disciplinary bickering, and (d) stick to the role of finding and interpreting facts rather than assuming the role of policy maker. On the whole this paper presents a useful critique of the notion that fishery management is technical decision-making. It also realistically describes the context and content of the policy making process within the Regional Fishery Management Council system.

In my view, however, Marasco and Miller miss out on the broader role of standard fishery management objectives in setting the research agenda, and they prescribe too narrow a role for scientific/technical experts in the management process. I contend that the biological and economic objectives discussed in the literature of fisheries provide important constraints to management options, and that the special values widely held by fisheries professionals play a unique role in the management process. Acting as both expert advisor and advocate for professional values creates an ethical/professional dilemma for scientists in public policy debate. The remainder of my comments will focus on two issues: (1) the role of objectives in defining and clarifying the role of technical experts, and (2) the role of objectives in delimiting the scope of delegated action or investigation.

Each profession involved in fisheries management is predisposed to accept certain basic values, and these values represent unwritten objectives that have a profound influence on the menu of options and evaluations presented to decision makers. The interests and ethical commitments common to fishery biologists and resource economists appear explicitly in the MFCMA, and they frequently surface in the wording of proposed management objectives. Preservation of individual species and maintenance of "healthy" (i.e. abundant) fish populations are ethical commitments prevalent in fisheries biology. Some biologists see conservation of fish stocks not as a means to satisfy man's desires, but as an end in itself. The extreme depth of this commitment is reflected in the view that the fish population itself is the primary client of the fishery manager (Wright, 1981; p 38).

Similarly, pursuit of economic efficiency and an equitable distribution of income (or at least an equitable distribution of opportunities) are commonly held commitments in the economics profession. Economists are not satisfied with maintaining "healthy" fish populations, but seek also to minimize the costs of taking the allowable yield. They are frequently impatient with regulations that bestow unjustified monetary gains on special interest groups. Economists often see themselves as defenders of the general interest as against the special interests. These widespread professional viewpoints motivate and inspire much research, and guide the formulation of technical advice.

I view these professional predispositions as a necessary and constructive element of the system. Professional values lend a sense of purpose and ethical self-confidence to experts having no personal stake in management. Without them the technical work would likely deteriorate under the continual political pressure of self-interested resource users.

Marasco and Miller recognize that scientists, lacking clear instructions from the Council, may unduly insert their own value judgments into the planning process. That is, professional values may be translated into specific management objectives without adequate political input. But it is unreasonable to ask that intelligent and concerned advisors, acting with minimal guidance, develop management options and analyses that ignore their own viewpoints. By ignoring the other horn of this dilemma, the paper misconstrues the role of technical advisors.

The conflicting roles of experts need to be openly discussed. The scientists do act, and, I would argue, are expected to act, as partisans for more conservative harvest policies. Economists are expected to advocate efficiency, and sociologists/anthropologists are expected to look out for the interests of small (especially rural or minority) communities. Experts are part of the process, and they cannot be cast in the role of detached specialists. Fishery scientists need to recognize their multiple roles and to distinguish clearly between technical information and advice based upon personal values and circumstances.

A unique aspect of most technical advice is that it is slanted not by self-interest, but by a special kind of altruistic interest. This gives the expert's information more credence than that of self-interested spokesmen, and it lends consistency and transparency to expert recommendations. In my view, fishery managers are less likely to be misled by biologists counseling conservative quotas or economists seeking efficient harvest policies, than by advisors with no known professional position. Ideally the experienced fishery managers would recognize the various roles and ethical commitments represented by all their advisors. This frees the technical experts to shift between technical information and advice-giving roles with a minimum of confusion.

Marasco and Miller are correct to worry that the technical experts (as well as other advisors) may take over too much of the decision makers role. But this worry is inconsistent with the authors' claim that Councils should not be pressed to provide objectives at the outset of the management process. What is to be substituted as guidance to planning teams and advisory groups? The scientists are there to inform the politics, but it is unclear how information requirements are to be established if not through something like a set of objectives. If scientists are not to take policy into their own hands, how are they to begin the task of management planning, and what is the Council's responsibility in setting the agenda?

Since Council members must delegate most of the work in developing management regulations to teams of experts, initial objectives in the planning process must play a crucial role in controlling delegated authority and guiding subsequent policy evaluation. The objectives provide guidance as technical experts sort through a huge number of options to pick a comprehensible few for consideration directly by the Council. Through the process of plan development, therefore, some specific objectives should be established before significant amounts of planning are completed.

These comments deal with the broader and more complex question of how to use expert advice to make wise decisions in a representative democracy. There is no simple solution. Currently, the economics profession is undergoing a self-conscious re-examination of its role in public policy. As Nelson (1987, p.50) recently noted, "Economists coming into direct contact with government decision making have found that they cannot limit their role to that of neutral technicians; to do so would be to make themselves irrelevant and ultimately excluded." The role of advocate is not taught to economists, and much of the expert work done by economists does not call for advocacy of economics principles. Yet the effectiveness of economics thinking in forming public policy depends upon advocacy skills exercised by "insiders" (e.g. experts retained by decision makers) much more than it depends upon the virtuosity of academic research projects. Fishery biologists clearly face a similar need to advocate effectively for their conservation ethic.

In summary, although the paper by Marasco and Miller makes important distinctions between science and politics, I feel that it is unrealistic in calling for technical advisors to avoid advocating professional values, and that it is incorrect to view all objectives as outcomes of the policy process. Marasco and Miller are correct that allocations of fishery benefits and choices among competing objectives must be resolved by policy decisions, and that the outcomes imply original objectives. However, neither professional values and ethics nor the objectives established by the Council to limit the range of technical evaluation are "outcomes of the policy process". Prior objectives do and should have an important role to play in the formation of policy options and in controlling the scope of technical analysis.

REFERENCES

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