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## SECTION 2

### Challenges for 21<sup>st</sup> Century Fisheries and Broad Vision for Training

*What is the vision for fishery management 10 years from now?*

#### **Introduction**

The opening session of the workshop focused on visions for 21<sup>st</sup> century fisheries and the challenges those visions represent. No attempt was made to define a succinct consensus vision for fishery management. Rather, the session focused on elucidating how visions of future fishery management influence perceptions about the knowledge, skills, and personal qualities needed by future fishery managers. Speakers and participants agreed that fishery managers face major difficulties in addressing mandates for sustainable fisheries, ecosystem management, rights-based management, and greater stakeholder and community participation. However, specific challenges and their perceived priority varied by the participants' management experience, their political, economic, and social context and the sector they represented (e.g., government, industry, academia, indigenous, NGOs).

Speakers and participants with significant administrative responsibilities emphasized the gap between recent legal mandates for sustainable fishery management and existing management practices. They argued that rather than develop new or ambitious visions, fishery managers should use the next 10 years to overcome "implementation overload" and address legal responsibilities under current law. They emphasized the need for eliminating overfishing, rebuilding stocks, reducing harvesting capacity, generating profitable fisheries, solving allocation, addressing jurisdictional complexities, and reducing litigation.

Many participants stressed the need to transition to stronger rights-based approaches for fishery management. Industry representatives emphasized the importance of private sector stakeholder responsibility for fishery management; however, they also recognized the challenge of reconciling management by fishing rights holders with other stakeholder groups.

Representatives of indigenous people highlighted the need to meet sustainability mandates and the needs of future generations. They stressed the importance of ethics in fishery management and integrating ethics with institutional design and scientific management responsibilities. They also cited the value of indigenous knowledge and the need to minimize loss of historical, cultural, and resource knowledge as traditional users and managers retire or end their participation in fisheries.

## **Fishery Management Challenges**

Highlights from the discussion and written comments on the vision for 21<sup>st</sup> century fishery management focused on the following categories of challenges, opportunities, and needs:

### *Cooperative and Stakeholder-based Management and Research*

- Increasing public demand for authentic participation in all aspects of fisheries management
- Developing a transparent flexible working relationship with environmental groups, non-fishery stakeholders, and government agencies
- Evolving fisheries management from a mostly top-down process to one that is more stakeholder-based with strong research and technical support from academic and government sides
- Developing, implementing, and working with effective co-management (partnership) agreements (includes arranging funding and providing accountability for funds)
- Educating urban populations about marine and coastal rural resource issues
- Facilitating debate between different sectors on resource use and management
- Reaching an appropriate balance between industry desire for self management and government stewardship responsibilities
- Supplementing scientific knowledge with stakeholder knowledge

### *Ecosystem Management*

- Developing and implementing ecosystem based fisheries management policies
- Managing for multiple species
- Improving our understanding of natural system variability, climate change, and anthropogenic impacts on fisheries
- Rebuilding depleted fishery stocks consistent with ecosystem principles

### *Management Under Risk and Uncertainty*

- Contending with lack of basic biological and economic information, e.g., fish stocks; ecosystems; economic data from commercial, recreational, and non-consumptive users
- Making appropriate management decisions in the presence of the inherent uncertainty of resource stocks, industry, markets, enforcement, and government behavior
- Making timely decisions with little information

### *Property Rights and Allocation*

- Implementing an integrated rights-based fisheries management framework
- Allocating fish resources among stakeholders, including commercial, recreational, and indigenous
- Dealing with future failures in poorly designed Individual Transferable Quota (ITQ) systems
- Maintaining the diversity of user groups
- Improving management recognition, inclusion, and capability for representing the public's right to share inshore fisheries

### *International Management*

- Evaluating the relationship of individual and national fisheries to transboundary ecosystems, markets, and legal jurisdictions
- Growing fishing pressure on high seas fish stocks
- Increasing global population and demand on fisheries
- Increasing trade in fisheries products
- Managing high seas, shared, and trans-boundary fisheries
- Breaking down trade barriers and realizing new trade opportunities

### *Public Environmental Objectives*

- Evaluating the relationships between fisheries and society as a whole
- Increasing public opposition to commercial fishing based on concerns over environmental impacts
- Understanding and managing the conflict between commercial uses of fish resources and environmental goals
- Rationally addressing the increasing demands to implement marine protected areas as a fisheries management tool or as a means to accomplish other goals such as biological diversity or stock preservation
- Integrating broad conservation agendas to the satisfaction of their proponents while sustaining economically viable fisheries

### *Improving Management Effectiveness*

- Developing efficient and effective fishery management institutions
- Fostering innovation in fishery management practices to address complexity
- Promoting cost-effective compliance
- Focusing fisheries management on substantive issues rather than short-term emotive issues
- Incorporating economic principles into fishery management
- Integrating socio-economic issues into management decision making
- Defining and evaluating expectations, measures of success, and accountability
- Decreasing public budgets for fishery management
- Delivering the efficient use of fisheries management budgets, particularly in the context of cost recovery
- Accommodating and incorporating privatization of services

### *Improving Ocean Governance*

- Developing governance systems for multiple ocean use and conflict resolution
- Integrating aquaculture systems in comprehensive coastal resource management

### *Litigation*

- Recognizing the increasingly litigious environment and role of the courts in fishery management
- Contending with compensation claims where existing rights are impacted by management decisions
- Successfully managing lawsuits once initiated

### **Summary: Visions for the Ideal 21<sup>st</sup> Century Fishery Manager**

The vision session on fishery management concluded by addressing implications for general abilities and competencies of the 21<sup>st</sup> century fishery manager. Reflecting the difficulty in defining a simple or single vision for fishery management, there was no consensus vision of an ideal fishery manager. Participants generally agreed that fishery managers in the 21<sup>st</sup> century must be effective policy leaders possessing significant moral character and intellectual ability. They must not only be able to lead a policy process but lead teams of competent professionals capable of addressing management challenges. They should be passionate about improving management of fishery resources and increasing public and private benefits. They must also have the necessary technical management skills, but must not lose touch with the physical and human components of fishery management—the fish, the water, the fishermen, and the seafood processors.

While participants could agree on general ideal characteristics, they did not agree on specific characteristics. Although differences in opinions can be partially explained by a participant's experience, nationality, and sector, they also stem from different perspectives on the underlying models of fishery management and the perceived complexities of the management process. These issues are discussed in detail in the next section of this report.