CATCH SHARES & MONITORING SYSTEMS

Guiding Principles for Development of Effective Monitoring Programs
In Collaboration with MRAG Americas

The Guiding Principles for Development of Effective Monitoring Programs, summarized here, is the result of two workshops convened by MRAG Americas and Environmental Defense Fund (EDF) in 2010. The Guiding Principles summarize lessons from around the world and are intended to provide fishery managers and stakeholders with guidance on the planning, design, implementation and improvement of monitoring programs. The Guiding Principles should be a point of departure, and recognize the individuality of each fishery. They draw upon the expertise of over two dozen national and international monitoring experts, including national and international government employees, fishing industry representatives, and monitoring company employees. By outlining key components to consider and providing concise recommendations, the Guiding Principles can expedite and improve the design of monitoring programs.

Figure 1. The Guiding Principles are inter-related and should be considered simultaneously. The monitoring program should be continually reviewed to ensure it is achieving the goals of management and of the monitoring program itself.
Comprising eight categories, the Guiding Principles are as follows:

**Stakeholder Engagement:**
- Involve stakeholders in the design process.
- Consult with appropriate stakeholders to ensure the program is enforceable.

**Fishery Characteristics:**
- Consider the spatial and temporal scale and characteristics of each fishery before developing a monitoring program.

**Goal Setting:**
- Identify goals of monitoring programs for science, management, industry, and enforcement.
- Review the monitoring program to assess if it is meeting the goals and adjust as needed.

**Enforcement Considerations:**
- Develop a strong enforcement program in support of the monitoring program, and identify enforcement standards at the outset of the program in a clear and transparent manner.

**Monitoring Strategies:**
- Identify goals for data collection programs, which will inform the appropriate data collection techniques.
- Effectively plan for complexity, cost, and time requirements of the supporting data infrastructure.
- Identify which aspects, if any, of a monitoring plan should be conducted by the government, industry, or a certified third party. When using third parties, develop consistent performance standards and consider whether single or multiple providers are preferable.
- Develop consistent, standardized formats for collecting data.
- Eliminate redundancies in data entry and reporting systems.
- Consider at-sea monitoring for fisheries where protected species bycatch or discards at-sea are significant management concerns or where they occur in a large portion of the fishery.
- Consider dockside monitors in circumstances when the landings information is of interest.

**Coverage Levels:**
- Consider monitoring coverage levels for fisheries on a case by case basis.
- Consider a formal threat assessment and/or a cost-benefit analysis to determine the levels of monitoring that are needed to achieve the goals and objectives.
- Consider the needs of industry when setting coverage levels, and develop incentives for fishermen to adopt higher levels of observer coverage.

**Cost Considerations:**
- Determine who will have the financial responsibility for various aspects of a monitoring program. Consider a program that requires fishermen to fund at least a portion of the management and monitoring costs.
- Develop a process and a timeline at the outset of a monitoring program for shifting the burden of responsibility to industry, both for cost and for data reporting.
- Consider a program that allows for the resource to fund its own management by scaling the monitoring approach to the value of the fishery.
- Develop an efficient method for collecting money to cover costs of the monitoring program.
- Evaluate actual funding against the proposed design.

**Comprehensive and Adaptive Approach:**
- Review existing programs to learn from their advantages and disadvantages.
- Develop a comprehensive, flexible monitoring plan at the outset of the program.
- Consider a dynamic system which provides stability while also adapting as circumstances change.
- Allow sufficient time for management and program implementation.