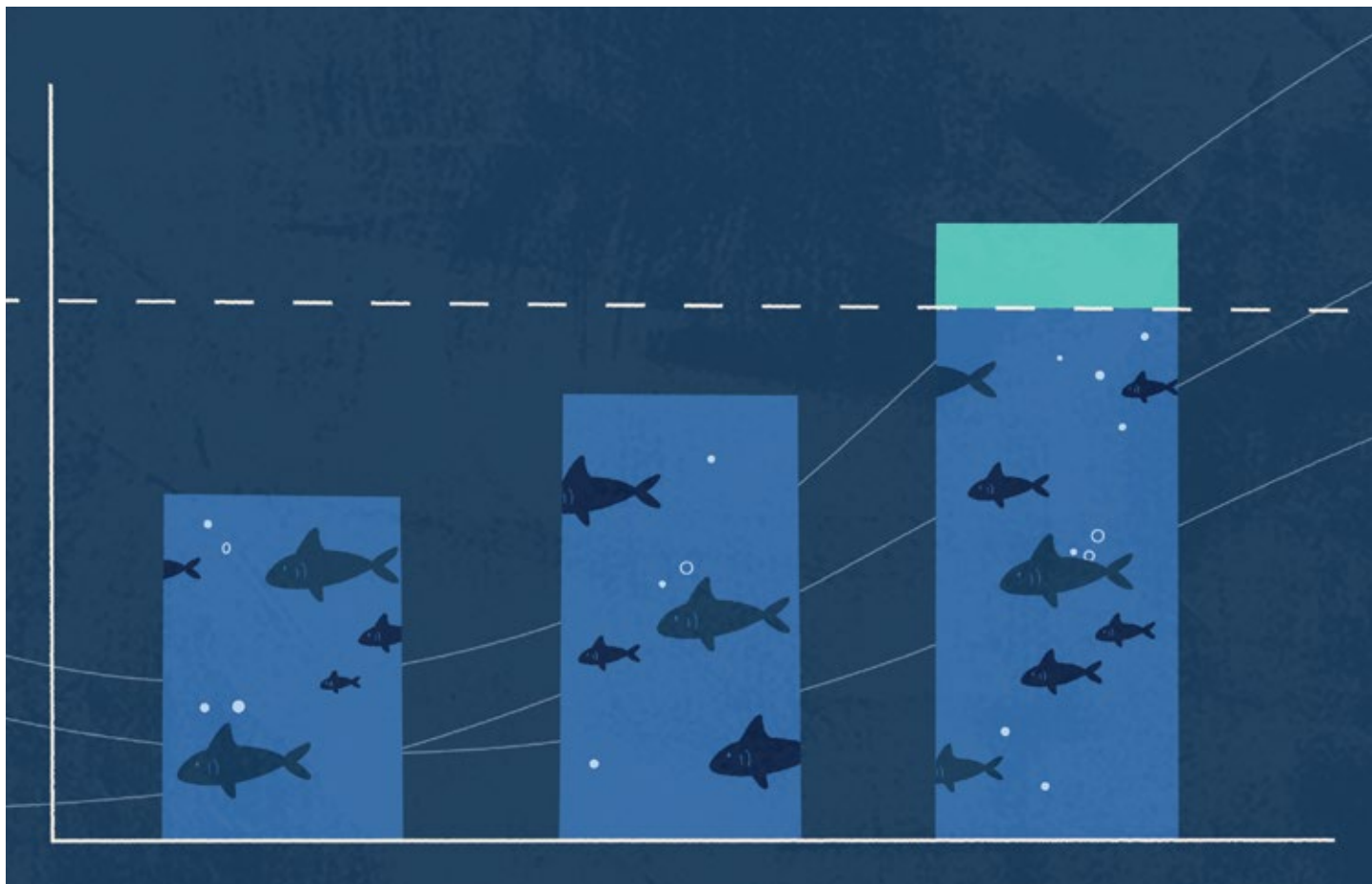


This fact sheet is one in a series outlining key elements for regional fisheries management organizations to consider as they develop electronic monitoring programs. More information is available at pewtrusts.org/ElectronicMonitoring.



Program Objectives and Coverage Levels

Successful implementation of electronic monitoring depends on reaching agreement on clear objectives

Overview

An electronic monitoring (EM) program can help regional fisheries management organizations (RFMOs) improve their oversight of vessels' catch and other on-board activities. To ensure that the program is effective, RFMOs, in consultation with stakeholders, should determine clear objectives for it. The stated goals will also help define the necessary level of monitoring and how EM systems will complement human observers.

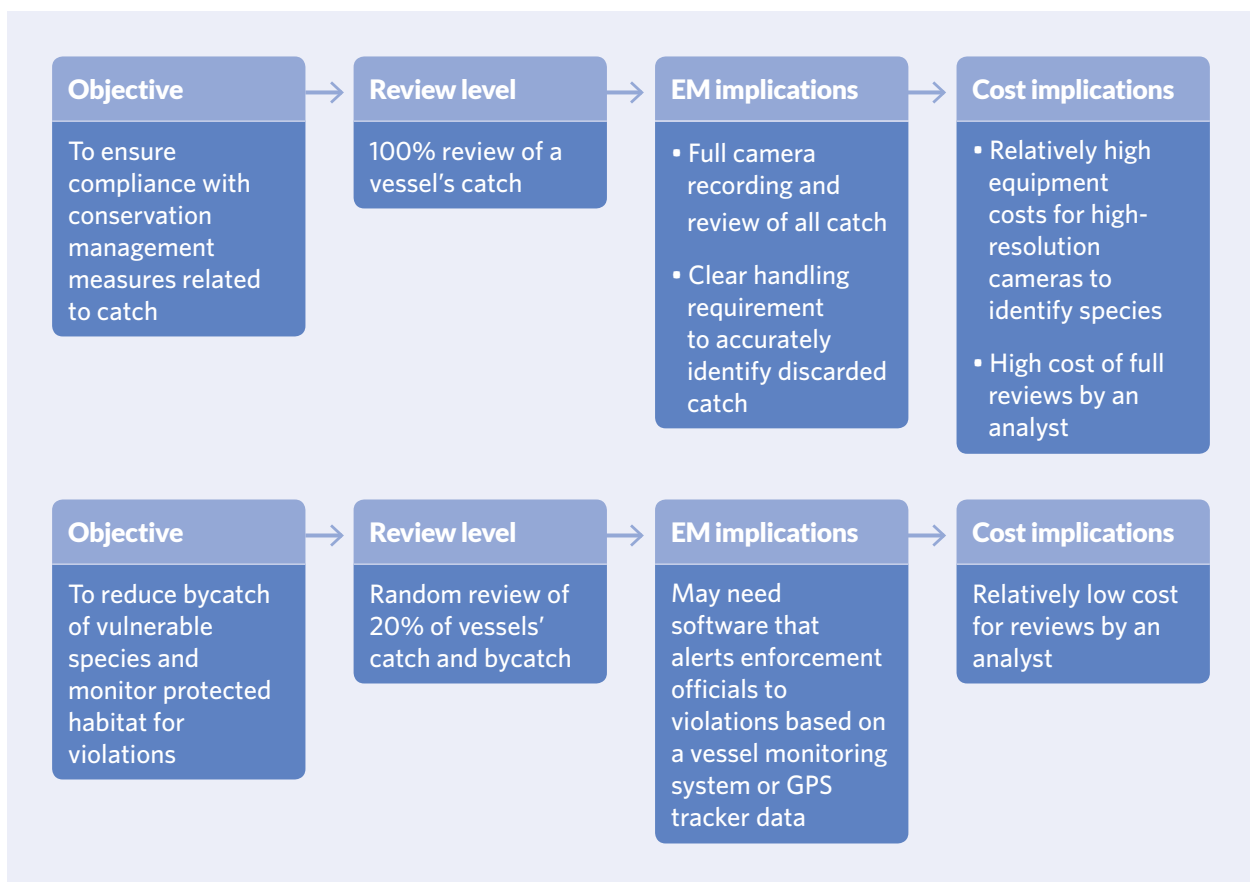
Setting EM program objectives

An EM program's objectives inform every aspect of it, from determining what equipment is needed and related costs to the amount of desired coverage and how data will be analyzed. Clear objectives also make it easier to communicate decisions to, and receive buy-in from, stakeholders.

Those objectives could include verifying target catch levels or complying with bycatch limits and other regulations. Fisheries managers should consider what challenges they have with monitoring, how EM systems can complement their current information collection system, and what additional data points can be collected economically, efficiently, and accurately with the systems.

Figure 1

Typical Fisheries Management Objectives and Their Implications



Objectives define coverage levels

Once objectives have been agreed upon, managers should decide the appropriate level of EM coverage—what percentage of the fleet would need to have EM systems installed and what activities would need to be recorded. Ideally, all vessels should be required to capture all activities electronically. If an EM system is not required on all vessels, operators who must participate might become frustrated by the lack of full accountability across the entire fishery. Full coverage would ensure proper oversight, and the data collected would represent all fisheries—and reduce the chance that vessel operators change their fishing practices when an observer is present.

Having 100 percent coverage does not mean that all video footage must, or should, be reviewed. EM programs usually review a random sample of the data, a practice that studies have found to be effective.¹

If full coverage is not feasible, a program should decide what portion of the fleet must install an EM system. In such cases, fishery managers and RFMO staff should:

- **Agree on the EM program's management and monitoring objectives.** An EM working group, for example, could be set up to allow stakeholders to discuss trade-offs, share information, and negotiate EM objectives.
- **Evaluate gear types to determine what information an EM system should collect.** Managers should consider vessels' fishing activity. For example, it may not be feasible for smaller vessels with limited fishing activity to have EM coverage.
- **Identify monitoring priorities tied to the program's objectives.** For example, longline fisheries may be interested in monitoring bycatch. Managers should assess the risks that unmonitored activities or fleets could present. Fisheries with minimal compliance problems could be rewarded with lower observer coverage requirements.
- **Discuss areas where EM may replace or complement human observers.** Most purse seine fleets require 100 percent observer coverage, so EM would probably complement this coverage. Because longline vessels have a high incidence of bycatch and extremely low observer coverage (about 5 percent), EM may be prioritized as a tool to improve monitoring.

Conclusion

Clear objectives, developed with input from stakeholders, form the basis for a well-designed and effective EM program. By taking the time to agree on the program's goals at the beginning of the design process, RFMOs can ensure that participants are on the same page about why and how the technology will be used, and managers can use the objectives to guide decision making throughout the process.

Endnote

1 The Pew Charitable Trusts, "How to Review Electronic Monitoring Data While Safeguarding Privacy," (2020), [pewtrusts.org/ElectronicMonitoring](https://www.pewtrusts.org/en/research-and-analysis/articles-issues/2020/04/01/how-to-review-electronic-monitoring-data-while-safeguarding-privacy).

For further information, please visit:
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