Electronic Monitoring: Program Design Considerations

IATTC
12 Dec 2022
Electronic Monitoring:
Our work focuses on 4 areas:

- **Removing barriers to EM adoption**
  - **ON-THE-WATER**: Achieve critical mass & test new EM applications
  - **TECHNOLOGY**: Innovate to mitigate pain points
  - **MARKETS**: Create private sector incentives for EM adoption
  - **POLICY**: Drive adoption of streamlined policies that catalyze EM uptake

- **Setting up the landscape for long-term success**
Momentum for EM

Demand for EM has moved from small 2-3 vessel trials to major commitments from governments, supply chain actors, and retailers

• **EM has the momentum of market incentives:** Thai Union has committed to 100% on-the-water monitoring by 2025, and several retailers have committed to transparency goals that are supported by EM (e.g., Tesco).

• **Government EM commitments:** Federated States of Micronesia, Seychelles, New Zealand, and other governments are committing to EM.

• **Without EM, many FIPs will be unable to progress to MSC:** the cost and logistical challenge of deploying appropriate levels of human observers across FIPs is unattainable in many fisheries. EM offers a cost-effective alternative. EM will be a critical verification tool for retaining market access and capturing premiums in the future.
FISHERY AUTHORITY ROLE IN EM PROGRAM DESIGN

- Defining the program’s purpose
- Setting information requirements
- Setting regulatory and policy requirements
FISHERY AUTHORITY ROLE IN EM PROGRAM ADMINISTRATION

*Performance standard* = specifies the outcomes a fisheries authority must achieve without prescribing the specific means of achieving them

*Technical standard* = explicitly describes the details and design of how an entity will achieve an outcome

How performance standards could support innovation and technology-compatible fisheries management frameworks in the U.S.

Melissa Garren a,b,*, Forrest Lewis c, Laura Sanchez d, Daniella Spina b, Annie Brett e

---

a Working Ocean Strategies LLC, 225 Crossroads Blvd, Suite 504, Carmel, CA 93923, USA
b Applied Environmental Science, California State University Monterey Bay, 100 Campus Center, Seaside, CA 93955, USA
c CEA Consulting, 285 Montgomery St., Suite 950, San Francisco, CA 94104, USA
d Center for the Blue Economy & International Environmental Policy, Middlebury Institute for International Studies, 460 Pierce Street Monterey, CA 93940, USA
* Levin College of Law, University of Florida, 309 Village Drive, PO Box 117620, Gainesville, FL 32611, USA
FISHERY AUTHORITY ROLE IN EM PROGRAM ADMINISTRATION

Performance standard framework (Garren et al. 2021)

- Fishery regulations and policy guidance
- Fishery level performance-based and data-focused standards
- Contracting structures
- Tools used to collect data
- Comprehensive and secure data flow
## Comparison of Program Administration Approaches

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| Fishery-Authority Administered | Maximum control over program and data  
Adaptively management the EM program; learn by doing                                                                                           | Capacity constraints  
Aligning incentives  
Business model and technology lock-in                                                               |
| Performance-Based EM program  | Maximizes alignment of incentives between public and private sector  
Fishery authority can focus on verifying accuracy of the information and using the information to improve fishery management | System interoperability  
Meeting fishers where they are / transaction costs                                               |
Example Performance Standard in Action

*Industry-Led EM Project*

**Project Outputs**
- EM program and shared infrastructure
- Harmonized EM performance standard
- Bulk procurement (hardware and data review)

**Participants**
- Thai Union, StarKist, Martec, and other tuna brands/processors
- The Nature Conservancy, ISSF, Key Traceability
- Governments, Regional Support Organizations
- Over 220+ participating vessels across the Pacific, Atlantic, and Indian Oceans
Goals

• Demonstrate the value of EM through an adoptable and multi-jurisdictional EM model
• Provide an easy on-ramp to an efficient and secure EM program
• Align public and private incentives to improve EM functionality and reduce costs
• Centralize and coordinate EM data management to make it easier for seafood processors and fisheries authorities to receive and process EM data and generate insights
How does the program work?
EM Performance and Program Standard

Objective

• Specifies requirements for data, quality, maintenance, security, access, and reporting
• Sets clear rules of the game, but doesn’t over-specify “how you get there”
• Drives innovation and ensures interoperability across service providers, jurisdictions, and companies
• Ensure harmonization across RFMOs and national authorities

Performance Standard Outline

• EM Program Goals
• Roles and Responsibilities
• Data Requirements
• Hardware Standards
• Video Review, Data Analysis and Accuracy, and Management
• Ongoing Finances and Billing
Ben Gilmer
ben.gilmer@tnc.org
Appendix
While satellites, drones, vessels and planes can show who’s on the water, EM takes our awareness a whole step further.

EM provides detailed data on fishing effort, catch composition, and bycatch of non-target species and adherence to environmental and social commitments.

EM drives confidence that seafood products have been harvested legally, sustainably and without labor abuses.