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Catalyzing the Growth of Electronic Monitoring in Fisheries: Strengthening Data Adequacy Requirements of the Marine Stewardship Council Standard

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Background on Electronic Monitoring

Every day, millions of fishing vessels ply the oceans to harvest seafood that helps feed the world's almost 8 billion people. The enormous challenge of protecting the productivity of the oceans while also safeguarding the livelihoods of the millions of people who work along the seafood value chain through traditional tools of data collection can be expensive and imprecise. The result is annual losses of $83 billion USD in global fisheries from insufficient management, accompanied by a gradual decline in the health of fish stocks and the marine environment.[1]

Electronic Monitoring (EM) can provide the detailed information fishery managers need to solve their data and compliance challenges. EM uses an integrated system of on-board cameras and sensors that record fishing activity and extract data. This powerful tool can enable more targeted, cost-efficient management strategies and create opportunities for seafood industry stakeholders to drive improvements in their operations and demonstrate legality and sustainability to the seafood marketplace.[2]

Background on Electronic Monitoring and the Marine Stewardship Council Standard

More than two decades old, the sustainable seafood movement is now firmly entrenched in the global marketplace. Over 16 percent of the world's seafood catch is now certified or under full assessment against the Marine Stewardship Council (MSC) standard (Figure 1). The MSC has been instrumental in raising the profile of sustainable seafood and encouraging improvement on the water. The MSC standard has also been an incentive for several fisheries to implement electronic monitoring (EM) to improve data collection and validate on-the-water practices. But there are some limitations to the MSC standard's ability to encourage EM and, in some cases, the MSC standard is paradoxically proving to be a deterrent to EM.

> *"Unfortunately, I am not seeing the market drive from the retailers. I was hoping that they would push for transparency in their supply chain, but it has not happened so far. They are pushing for MSC and FIPs, but not for EM."*
>
> —EM SERVICE PROVIDER

1. World Bank Group, "The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries," 2017, https://openknowledge.worldbank.org/bitstream/handle/10986/24056/9781464809194.pdf
2. Philip Christiani et al., "Precision Fisheries: Navigating a Sea of Troubles with Advanced Analytics" (McKinsey & Company, 2019), https://www.mckinsey.com/~/media/McKinsey/Industries/Agriculture/Our%20Insights/Precision%20fisheries%20Navigating%20a%20sea%20of%20troubles%20with%20advanced%20analytics/Precision-fisheries-Navigating-a-sea-of-troubles-with-advanced-analytics-vF.ashx

PHOTO: THE NATURE CONSERVANCY

The Challenge

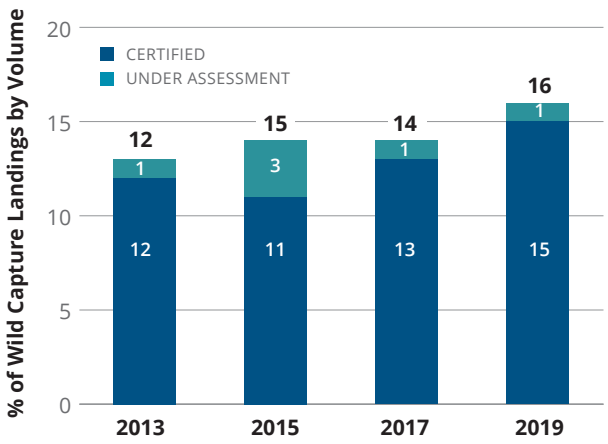
MSC provides no guidance to Certified Assessment Bodies (CABs) on what constitutes adequate data in terms of quality or quantity for undertaking an assessment of a fishery against the MSC standard. This creates a perverse structural incentive to collect and provide less and lower-quality data to secure certification. In practice, several fisheries certified to the MSC standard are likely out of compliance with fisheries regulations or would be found to not meet the MSC standard if more comprehensive monitoring were in place. For example, many of the fisheries that are certified in the EU are likely to be out of compliance with the EU landings obligation. With more than 10 percent of MSC certified fish coming from EU fisheries,[3] this could be a major challenge. Insufficient data may also be a concern in other MSC certified fisheries with strict discard or bycatch limits, shark finning, or endangered, threatened, and protected (ETP) species interactions. Questions have been raised about the certification of some longline tuna fisheries, which have observer coverage of only about five percent—far short of the level widely accepted by science and compliance experts.

The MSC recognizes this issue, and in a recent comment in response to the Swedish Agency for Marine and Water Management (HaV) about a proposed EM trial they said:

> *"The landing obligation poses challenges for MSC-certified fish in many parts of Europe. If the control system is not improved, existing certifications may be withdrawn. Camera surveillance in collaboration with HaV could be a way for Swedish MSC-certified fish to obtain the documentation needed to demonstrate compliance with the landing obligation."*[4]

FIGURE 1

Percent of global wild capture landings in the MSC program



The MSC is in the front half of a five-year cycle during which it will update its fisheries standard. As a part of this review, the organization is looking at monitoring best practices and how to improve the evidentiary quality and quantity in MSC assessments. There have been two technical workshops—one in London and one in San Francisco—in which the concept of a risk-based framework for data requirements was developed. The idea is that fisheries will be classified into different risk buckets (high, medium, low) based on criteria such as whether the fishery spans multiple exclusive economic zones, or if it has a high likelihood of endangered, threatened, and protected species interactions. The risk classification will provide guidance to CABs on the quantity and quality of data the fishery needs.

The updated MSC standard will not be complete until 2022, but the idea of increasing the rigor of monitoring requirements based on risk levels in the fishery will likely be considered during this review. If this is included in the updated standard, it should provide additional incentive for EM as it will be the best tool to meet the more rigorous data requirements for some fisheries.

Recommendation

Support should be provided to NGOs to engage in the MSC standard revision process that is currently underway to ensure that robust, risk-based data adequacy requirements are integrated into the standard to increase confidence that data feeding into the assessments accurately reflect fishery impacts.

3. CEA Consulting. 2020. "Progress Toward Sustainable Seafood - by the Numbers, 2020 Edition."
4. Swedish Agency for Marine and Water Management. "Proposal for design of experiments with camera surveillance of fishing vessel." (2019)