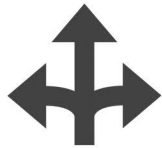


WHAT COULD ELECTRONIC VIDEO MONITORING MEAN FOR FISHERIES MANAGERS?

Fisheries managers are faced with multiple and ever increasing responsibilities from the practical implementation of government policies to guarantee sufficient monitoring of fisheries for compliance and scientific data collection. Under the Sustainable Fisheries Framework, fisheries managers are required to ensure adequate data collection, monitoring and management to provide sustainable management decisions for various directed fisheries and non-target species.

The increase in data requirements, obligation to meet new deliverables as new policies are adopted and lack of consistent systems across Fisheries and Oceans Canada (DFO) can result in a failure to achieve policy objectives. Inadequacies in current practices were made clear in the October 2016 report by the Auditor General.

The development of a National Catch Monitoring Policy will place further onus on fisheries management to implement additional requirements for fisheries data collection. In some cases, data collection can be more consistent and streamlined by using electronic or video monitoring either in place of, or along side, at-sea observers. While it may not be a replacement for on-site data collection and biological sampling (e.g. otolith collection, weight etc.), there are several benefits to electronic/video monitoring (EVM) which are outlined below:



MORE CHOICES

Currently, management relies on the at-sea observer program for at-sea monitoring. EVM provides another option that can be used to **support** the current observer program and/or as an **alternative, independent data collection tool**. EVM has the potential to alleviate the demand pressure on the current monitoring program while delivering some of the same data collection requirements.



INCREASE VALIDATION

The main fishery dependent sources of information for management decisions are logbook data and dockside monitoring. If not independently verified, these data may contain inherent uncertainties. EVM can be used to directly increase the validation of all logbook data, which is valuable for use by managers. EVM can be used to **collect and validate data** on catch effort, numbers, lengths and weights, species identification, etc. However, EVM cannot be considered a substitute for in-person sampling for all biological data.



INCREASE CONFIDENCE

Perception and confidence are important to the **effective management** of fisheries resources. EVM provides demonstrable confidence in the fisheries data, which may increase public and industry confidence in fisheries management decisions. The fishing industry can also use data collected through EVM for their own purposes (e.g. verifying fishing grounds, solving inter-fleet disputes etc.).



PROVIDES MORE DATA

EVM can be used to directly **increase monitoring levels** for some fisheries, and can effectively provide 100% coverage of fisheries activities, dependent on the level of video review. EVM also allows for simultaneous data collection, including GPS, fishing activity, catch composition, Endangered, Threatened and Protected species interactions, etc., all of which are taking place **simultaneously for the entire vessel**. Finally, EVM can allow for increased data collection in collaboration with that of the observer by providing support to observers' various roles on the vessel, which includes biological sampling.



PROVIDES DIVERSITY

EVM provides increased opportunity to **customize data collection** to meet many of fisheries management data needs at fleet or fishery level. The data and analyses can be **tailored to each individual fishery and gear type**, providing a highly effective, efficient and accurate tool for management decision making.



REDUCES COST & REDUNDANCY

EVM may help reduce the effort required by various agencies involved in data input, therefore potentially **reducing redundancies, time and cost to management** in receiving and processing logbook and catch data. EVM provides near real-time electronic submission that can be delivered simultaneously to all parties involved. There is also potential to connect the EVM system to all regional DFO networks, allowing for a **systematic synchronization of data** for national level reporting.

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