



ELECTRONIC MONITORING (LONGLINE) PROCESS STANDARDS WORKSHOP



Funded by the International Seafood Sustainability Foundation (ISSF) and organised by the Pacific Community (SPC), a three-day workshop on 'Electronic Monitoring Longline Process Standards' took place at the SPC headquarters in Noumea between the 27th and 29th of June 2016. The workshop brought together experts currently involved in the use of electronic monitoring systems from regional fishery management organisations, Pacific Island national fisheries offices, a non-government agency and electronic monitoring service providers (the full participant list is below).

Electronic Monitoring (EM) has been defined as a closed monitoring system that enhances existing vessel monitoring systems (VMS) through the use of cameras, GPS capacity and gear sensors to monitor fishing activity. In the Western and Central Pacific Fisheries Commission's (WCPFC) Convention Area, EM is now, after a number of years of testing, an established method of collecting data from tuna fishing activities (e.g., VMS is approved). The capture of fisheries data through electronic tools has the powerful potential to enhance existing data collection systems and improve data deficiencies — the loss of data through mis-information or under-reporting. Such data loss from licensed vessels was identified as the major contributor to IUU fishing in the region¹. Additionally, EM along with electronic reporting (ER) has the capacity to deliver real-time data and significantly improve the reliability of logbook data, thus enhancing the value of stock assessments and various other technical analyses. The ability to monitor the security of personnel on board is another valued feature.

The workshop's main aim was to list the detailed data standards for EM for longline fleets by defining the data fields and describing the business requirements in relation to those data fields. These are increasingly sought by EM service providers in the region. The longline fleet was identified as having the more immediate needs in terms of EM data specifications as full observer coverage is already a requirement for the WCPFC purse-seine fishery. In contrast the longline fleet has substantively more vessels, many of which remain at sea for extended periods, and offers a more challenging environment for observer placements. At-sea transshipments are routine for longline

¹ MRAG Asia Pacific (2016). Towards the Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region. 101pp.

vessels fishing on the high seas and the physical challenges of getting observers to the vessels and providing them with appropriate accommodation can be disruptive and are the main reason why observer coverage in this sector of the longline fishery has historically been very low.

In essence the workshop was a technical meeting. As a starting point, the *e-reporting* standards drafted for the WCPFC² provided the framework for a step-by-step approach to crafting the new EM data standards. The positive response to the workshop invitation from a diverse and knowledgeable group provided a solid environment to investigate both the validity of each data field with respect to the capabilities of EM technologies and the current technical capacity. The other reference tool that proved helpful to the workshop was the report on the trial of electronic monitoring carried out in the Solomon Islands³.

The workshop acknowledged the requirements for new policy and legislation around EM, at both the national and regional level, but noted that this area was beyond the mandate of the workshop. The associated over-arching issues were, however, documented as they arose and considered during a session at the end. This discussion will be included in the paper sent to the WCPFC ER and EM WG 2.

In developing the EM data standards, the working group systematically reviewed all the data fields currently collected by on-board observers (which cover both the WCPFC Regional Observer Programme (ROP) minimum data standards and additional fields required by the SPC/FFA Data Collection Committee) and assessed if the data could be collected through current versions of EM. The draft EM data standards recognise and detail the preferred source for each data field noting some data can't be collected through electronic imagery. It was acknowledged that some data could be collected by a technician before or after the trip (e.g. vessel details, equipment details or species lengths) and an onboard observer or port sampler will be needed to collect some biological data (e.g. otoliths and gonad stage), for example. Additionally, the large quantity of generated imagery will normally require further interpretation by an office-based observer before it becomes 'data'. Data derived from calculations is another possible source of information. Automatically generated data, often captured by sensors, is the currently preferred source of EM data; and while not always feasible with current technology, future developments are likely to increase the amount of data that

² Western and Central Pacific Fisheries Commission (WCPFC) E-reporting standard data fields operational observer data. Version 2.00, 22 Feb 2016, Draft – yet to be approved.

³ Hosken 2016 Solomon Islands E-Monitoring Project Report

can be automatically derived. The limiting factor may be cost and not technology. The workshop also documented data fields for further consideration by the appropriate data groups either for inclusion, retirement or as potential new data fields once the technological issues are resolved.

The full draft technical standard arising from the workshop will be prepared and submitted to the 2nd meeting of the WCPFC Electronic Reporting and Electronic Monitoring Intersessional Workgroup in early August, 2016. It is acknowledged that these EM data standards are a substantive start to the work that needs to be achieved, but on-going work will be required, most especially in the early years and in maintaining the standards as data needs evolve. The data standards were generated mostly from a science perspective and define how the EM data can align with existing on-board observer data and how EM can be used to verify reporting of real catch, discards and effort. Verifying real catch and effort is extremely important for stock assessments and is an important part of fisheries compliance. However, it was noted further work is needed to assess compliance needs and standards for monitoring activities like transshipment. The standards do not include advice on vessel coverage levels, the limitations around cost or the legal requirements and these will have to be explored before enhanced EM is a successful source of data in the region. They do, however, fulfil the immediate need of supplying service providers with the data standards they require to achieve the common goal of enhancing data collection from tuna longline vessels in the Western and Central Pacific Fisheries Commission's (WCPFC) Convention Area.

Workshop Participant List

	Name	AFFILIATION	
Ian	Knuckey	Fishwell Consulting	FACILIATOR
Peter	Williams	Pacific Community	CHAIR
Malo	Hosken	Pacific Community	ORGANISER
Deirdre	Brogan	Pacific Community	
Siosifa	Fukofuka	Pacific Community	
Tim	Park	Pacific Community	
Emmanuel	Schneiter	Pacific Community	
Kerry	Smith	AFMA, Australia	Chair of WCPFC EREMWG
Victor	Restrepo	ISSF - International Seafood Sustainability Foundation	
David	Power	Forum Fisheries Agency	
Yvonne	Ueda	The Nature Conservatory	Palau
Netani	Tavaga	Ministry of Fisheries & Forestry, Fiji	
Jale	Qereiwasa	Ministry of Fisheries & Forestry, Fiji	
Thomas	Auger	Direction des Affaires Maritimes, New Caledonia	
Brian	Kumasi	National Fisheries Agency, PNG	
Bob	Stanley	Archipelago Asia Pacific	Service Provider
Gonzalo	Legorburu	Digital Observer Services	Service Provider
Oscar	Gonzalez	Marine Instruments	Service Provider
Jared	Fuller	Saltwater Inc	Service Provider
Jens	Heinsdorf	Satlink	Service Provider
Garland	Shen	Luen Thai Fishing Venture	Service Provider

Workshop website

<http://www.spc.int/oceanfish/en/meetingsworkshops/e-reporting-a-e-monitoring>