EHSP Analysis paper

Effectiveness of CMM2010-02

At the Seventh Annual Session of the Western and Central Pacific Fisheries Commission the Cook Islands, with support from French Polynesia and Kiribati, presented the paper WCPFC-2010-IP-07 to support the adoption of a proposed Conservation and Management Measure (WCPFC7-2010-DP/04) that would address or at least provide some mechanism for monitoring activities in the eastern high seas pocket (EHSP), enclosed by French Polynesia, Kiribati (Line Islands) and Cook Islands.

Cook Islands has experienced several IUU cases over the last ten years, and found that the EHSP was a major entry and exit point for its EEZ as it was being used as a platform for IUU fishing activity being carried out in its waters. VMS data demonstrated unlicensed fishing vessels would enter the Cook Islands EEZ, undertake fishing activities, and then exit back into the EHSP. At the same time fishing vessels would travel from beyond the EEZs of the three aforementioned countries and use the pocket to undertake unmonitored transhipment activities. Catch data indicated discrepancies between catches within the EHSP and areas immediately surrounding the pocket. All this identified the need for the adjacent coastal states to designate the EHSP as a special management area, and gain greater monitoring, control and surveillance capabilities to improve the management of the activities within the EHSP, and therefore areas within their EEZs.

Currently, CMM2010-02 requires all vessels to submit manual entry and exit reports, encourages the reporting of sightings of other vessels operating in the EHSP and transhipment notification in accordance with CMM2009-06. The measure provides the adjacent coastal states access to the EHSP access to VMS data in accordance with the Commission’s data rules, manual reports, and a ‘live list’ of vessels in the EHSP. The measure will be reviewed in 2013.

An analysis on the first year of implementation of CMM2010-02 was carried out for the period 1st July 2011 to 30th June 2012 to determine the effectiveness of the measure using all available data sources. For the analysis data sources included the manual reports transmitted to the Secretariat, VMS data for the EHSP, transhipment notifications, and

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\(1\) In particular Paragraph 22 of the Commission’s Rules and Procedures for the Protection, Access to, and Dissemination of High Seas Non-Public Domain Data, and Information Compiled by the Commission for the Purpose of Monitoring, Control and Surveillance (MCS) Activities and the Access to and Dissemination of High Seas VMS Data for Scientific Purposes, and through a standing request under paragraph 5 of these Rules and Procedures.
available operational catch and effort data. Current data management practices were also observed.

VMS
The three countries (herein referred to as Tripartite Countries) that enclose the EHSP are provided VMS data in line with paragraph 5 of the measure, however, the Secretariat created a geofence of the EHSP to enable the production of automated entry and exit alerts. When a vessel is first or last detected, by the VMS, within the EHSP an entry or exit alert is sent to the Commission. This information helps to verify the manual entry and exit reports provided by vessels.

A total of 125 reports (62 entry, 63 exit) were generated for the EHSP. In comparison to manual reports, this number is significantly lower and highlights the need for improved VMS capacity within the region. VMS alerts only account for 57% of manual reports demonstrating deficiencies in the Secretariat’s ability to fully monitor vessels operating within the Convention Area. Figure 1 demonstrates discrepancies between VMS and manual reporting amongst fleets, with some vessels not reporting manually and others not reporting on VMS. All vessels were listed on the WCPFC Record of Fishing Vessels (RFV).

The Secretariat advised that approximately half of the vessels on the WCPFC RFV are monitored on VMS, coupled with the lack of real time or current information on whether vessels are active or not, hinders the Secretariat’s ability to fully monitor or determined the level of fishing activity within the Convention Area. Deficiencies in both VMS monitoring and information on each vessel activity status should be addressed, by ensuring all vessels on the RFV are monitored on the VMS, and the Secretariat should be provided, at minimum, monthly updates as to whether vessels are active or not. This will provide the Secretariat the necessary information to accurately determine VMS coverage and fishing effort in the Convention area.

Live lists are generated every 6 hours and posted on the secure section of the WCPFC website for the Tripartite countries to access. This tool is beneficial as it provides another means to monitor activity within the pocket, particularly when VMS access is disrupted.

Access to VMS information for the EHSP has enabled improved maritime patrol tasking for the area, particularly for joint operations by vessels authorised to undertake high seas boarding and inspections, enabling patrolling efforts and resources to be shared and managed more efficiently.

Operational level catch and effort data
In an effort to verify catch and effort in the EHSP with the manual reports submitted to the Secretariat, a request for operational data was submitted however the Secretariat, through
their Science Services Provider, advised that only a few CCMs had provided operational data. These countries are American Samoa, Cook Islands, Fiji, Kiribati, French Polynesia and Vanuatu.

VMS and EHSP manual reports depict a significant amount of fishing and other activities in the EHSP, given its relatively small size and the effort in the surrounding EEZs, particularly by Chinese and Taiwanese fishing vessels. The lack of operational data to undertake analyses of this special management area hinders the ability of the Commission and its CCMs to verify other data sources, or to determine an accurate picture of activities within the EHSP. It is impossible to assign catch and effort to the EHSP, or to one of the surrounding EEZs, from aggregated data impeding the proper management of the tuna resources in this area, noting its importance to the Tripartite countries.

![Figure 1. Manual vs. VMS reports for Eastern High Seas Pocket for the period 1st July 2011 to 30th June 2012.](image)

**Manual reports**

Manual reports provided the largest dataset available to make an assessment on the amount of fishing taking place in the EHSP, and transhipment activities. As per paragraph 2 of CMM2010-02 all manual reports should be submitted in the following format:

\[ \text{VID/Entry/Exit: Date/Time; Lat/Long; YFT/BET/ALB/SWO/SHK/OTH/TOT(kgs) /TRANSHIPMENT (Y/N)} \]

All reports are received via email, however they are received in various formats other than that prescribed in the measure, most are received after the 6 hour reporting time frame and some reports are provided incomplete.
A total of 219 manual reports were received, 111 entry reports and 108 exit reports. When comparing the catch data reported on entry and exit reports, there is a surplus difference of 3,415mt indicating this catch was either caught or transhipped within the EHSP. The differences in catch reported by species are illustrated in figure two.

Of the difference between the reported entry and exit report catches, albacore accounts for 73% of the catch, followed by yellowfin and bigeye with 8% and 7%, respectively. This high proportion of albacore indicates reporting of discards and other species is not well recorded by the fleets operating in the EHSP.
Given the discrepancies between the manual reports and VMS data, it is difficult to determine the real level of activities in the EHSP, although the manual reports would be used as the basis for reporting coverage levels. Initially VMS data was expected to be used as the reference dataset to determine reporting coverage, however the VMS data is deficient and cannot be used for this purpose. These discrepancies highlight the need for all WCPFC monitoring programs to be improved and additional resources be assigned to such programs.

All manual reports are received via email and processed (that is read and entered in to databases) by WCPFC Support Staff. This is time consuming and can be replaced with automated systems that can be developed within the WCPFC Information Management System (IMS) if resourced adequately. All CCMs should ensure that manual reports are provided in the one lined report format outlined in the measure, to enable mechanisms to be developed by the Secretariat, whereby the IMS is able to capture this data in a more efficient process. Alternatively, a report submission function could be developed on the WCPFC website, where reports could be directly entered in to the IMS databases, requiring only verification processing by Secretariat staff. This would alleviate some of the resourcing issues related to this measure alone.

Other issues relate to manual reports being provided in languages and characters other than english, incorrect provision of data such as the reporting of catch by ‘pieces’, and total catch rather than catch by species catch.

**Transhipment**

VMS data and manual reports demonstrate transhipment activities are being carried out in the EHSP however no transhipment notifications were received by the Secretariat, as required under CMM2009-06, for this area. Only 4 vessels reported that transhipment activities were carried out in the EHSP through their manual entry and exit reports.

Many vessels enter the EHSP to undertake transhipment activities after transiting through the surrounding EEZs, yet do not undertake fishing activities within the surrounding EEZs. There are ports in close proximity to the EHSP, such as Raroronga, Pago Pago, Penrhyn and Papeete, that can facilitate and monitor transhipment activities rather than vessels travelling all the way to the pocket. Given this lack of compliance with reporting transhipment notifications, it is recommended that transhipment activities be prohibited in the EHSP, as alluded to in paragraph 38 of CMM2009-06.

**Resourcing**

Training and additional capacity building exercises should be provided to the Secretariat Support Staff who are often unfamiliar with the context to which the various data sources
apply, and how each data type should be managed. As a starting point, the Scientific Services Provider should be approached to deliver training to support staff in proper data management practices.

The WCPFC Secretariat have developed databases to store the EHSP information that they receive, however some requirements were lost in translation and not addressed. Noting the addition of more Conservation and Management Measures each year, and the requirements and resourcing needed to meet their requirements, additional resources should be assigned to the Secretariat for IT and IMS developments. Given the small number of staff, and the various other duties required of the Secretariat, additional resourcing in personnel and IT services are required.

**Conclusion**

The measure to date has provided some insight into the level of activity in the EHSP by fleet. However, data inconsistencies and deficiencies need to be addressed to better comprehend how access to the EHSP is being used, whether it be for fishing, transhipping or other activities, and how these activities relate to and/or affect management measures for each of the surrounding EEZs and the possibly at the sub-regional level.

Improved reporting practices are required and should be encouraged by all CCMs to their fleets, as well as implementation of VMS coverage across the entire WCPFC fleet.

This initial analysis has highlighted areas of work to improve, it should be noted that a more comprehensive analysis of CMM2010-02 will be carried out in 2013. Allowing the measure to continue as is will allow some of the issues identified in this paper to be addressed, as well as increasing the amount of data available for the 2013 analysis.

The measure will be reviewed at WCPFC10.
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