



**SCIENTIFIC COMMITTEE  
ELEVENTH REGULAR SESSION**

**Pohnpei, Federated States of Micronesia  
5-13 August 2015**

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**A Tier Scoring System for Compliance with the Provision of Scientific Data  
to the Commission**

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**SC11-WCPFC11-06  
(WCPFC11-2014-19b)**

**SPC-OFP**



**COMMISSION**  
**ELEVENTH REGULAR SESSION**  
Faleata Sports Complex, Apia, SAMOA  
1 - 5 December 2014

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**A TIER SCORING SYSTEM FOR COMPLIANCE WITH THE PROVISION OF  
SCIENTIFIC DATA TO THE COMMISSION**

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**WCPFC11-2014-19b**  
**20 November 2014**

**Paper by SPC-OFP**  
**Secretariat of the Pacific Community - Oceanic Fisheries Programme**

## Background

1. At the Tenth Meeting of the Technical and Compliance Committee (TCC10; 25-30 Sept 2014), the SPC-OFP was directed to develop a working paper on a tiered scoring system to reflect the magnitude of implications of data gaps and report to WCPFC11. The relevant text of the TCC10 report follows:

*250. EU recalled the recommendations from SC10 about data gaps, that TCC consider a tiered scoring system to better reflect the magnitude and severity of the implications of the lack of operational data. It would be useful for guidance from SPC to prepare a document to identify to severity of the impacts of the non-provision of certain data, not for the next TCC meeting, which is a whole year away, but for WCPFC11. Such a paper could inform the intersessional discussion and represents an important tool for TCC to improve the MCS scheme and compliance in general.*

*251. In response to question from one CCM about whether SPC had created such a document, SPC responded that there is a section in the [SC10] data gaps paper, under "operational data provision" which talks about the impacts for science on the lack of operational data. It was noted that SC's recommendation was that SPC look at levels of severity of certain data gaps and report to WCPFC11.*

*252. Japan supported this suggestion but noted that it was not limited to operational data, but data gaps generally. Japan directed CCMs to WCPFC-TCC10-2014-IP04 (updated scientific data gaps paper from SC10), which includes tables showing many gaps.*

*253. The TCC Chair noted that the SC report was related to the non-provision of scientific data, not just operational level catch and effort data.*

*254. One CCM observed that the nine points in the paper under discussion go some way towards assisting the development of that tiered approach. Another CCM noted that it would help TCC understand the extent of what member do not know.*

*255. SPC expressed the view that the information in the nine points was a good start to assessing the implications of data gaps.*

**256. TCC10 requested SPC to develop a working paper on tiered scoring system to reflect the magnitude of implications of data gaps and report back to WCPFC11.**

2. Further information related to "a section in the [SC10] data gaps paper" is provided in ANNEX 1 and to "the nine points in the paper under discussion" is provided in ANNEX 2.

3. SPC-OFP understands that its role with this directive is restricted to identifying and providing guidance on the relative importance of the data used in the scientific work of the WCPFC, and it is then up to the Commission to determine the relative compliance scores based on this information. However, it should be acknowledged that there are many other very important needs requiring the provision of operational data to the Commission other than for the direct scientific work, such as those mentioned in ANNEX 2 for example.

## Scientific data provision rules

4. Operational data (from logbooks and observers) are the most important of all the scientific data since they provide, *inter alia*, the only data collected at the fishing operation level and have allowed scientists to identify trends (such as vessel effects, gear configuration effects, etc.) not evident in other types of data. The WCPFC rules for the provision of operational data are outlined in two important documents:

- Scientific Data to be provided to the Commission (<http://www.wcpfc.int/doc/data-01/scientific-data-be-provided-commission-revised-wcpfc4-6-7-and-9>)
- WCPFC Regional Observer Programme (ROP) minimum data standards (<http://www.wcpfc.int/doc/table-rop-data-fields-including-instructions>)

5. It is important to note that the requirements in both documents are the ‘minimum standard’. When these rules were formulated, all data fields listed were considered fundamental to the range of scientific work conducted for the WCPFC. Additional fields were originally proposed as being important and have been used in some analyses (e.g. the longline bait used on logbooks), but were excluded from the minimum standards. **All data fields listed in these documents are the minimum standard, considered of equal importance across the range of scientific work conducted for the WCPFC, and therefore should be mandatory.**

## Evaluation of the scientific data provisions

6. The SPC-OFP considers that there are THREE clear levels in the evaluation of the scientific data provisions to the Commission, referencing the requirements outlined in the WCPFC documents listed in Para 4 above:

- I. No data are provided, or data have been provided but they have been evaluated as ‘unusable’ (instances where none of the data provided can be used in assessments). This level of data gap is the most severe and has by far the greatest impacts on the scientific work of the Commission.
- II. Data have been provided, most of which can be used for the scientific work of the Commission, but (i) there are one or several (minimum-standard) data fields not provided and/or (ii) the coverage of the data is not according to the requirements. In these cases, some of the scientific work of the Commission cannot be undertaken. Within this level, further distinction on the level of compliance could be made by considering the number of missing data fields in the data provided (for example, a status of FOUR data gaps is considered more serious than a status of ONE data gap).
- III. Data have been provided, there are no gaps in the data provided and the coverage of data is according to the requirements outlined in the documents listed in Para 4 above.

7. The SPC-OFP recommends that the compliance evaluation of the provision of scientific data to the WCPFC should clearly distinguish between the three levels described above. It is clear that “LEVEL I” would be the highest level of NON-COMPLIANCE, and that “LEVEL III” would indicate full COMPLIANCE. The following is an example of how LEVEL II might be evaluated:

- II. Provision of data, but with one or more data fields missing, would be allocated a % score based on the % of the total data fields provided. This score could be further modified by the coverage of the data, e.g. if 80% of the data fields are provided and the coverage of the data is 50% of the required level, then the overall score would be  $80\% \times 50\% = 40\%$  COMPLIANCE.

8. The above scheme is an example of how the level of data provision could be evaluated. Other types of metrics could be devised, but the important features to be captured are (i) the completeness of the data records with respect to the minimum data fields specified in the Commission’s rules; and (ii) the coverage of the data with respect to the total fishing activity for that gear type and the agreed standards on what the minimum coverage should be.

## ANNEX 1 - Excerpt from the SC10 Working Paper ST WP-1 Data Gaps (<http://www.wcpfc.int/node/18878>)

34. The SC9 reiterated the important implications of the ongoing failure in the provision of operational data for the Commission's science listed in last year's data gaps paper [Williams (2013) para 34] :

- *There are many instances in the Commission's work where a breakdown of catch/effort by areas of national jurisdiction and HIGH SEAS is required and this is not possible without operational data. Currently, for example, estimates of EEZs and the HIGH SEAS catch/effort are constrained by the lack of operational data;*
- *The absence of operational data has made it difficult to ensure that double-counting is not occurring when attributing catches from flag states to charter nations;*
- *Several studies using fine-scale operational data have identified important trends that are not evident in the aggregate data but need to be considered in the assessments (e.g. Hoyle et al., 2010). Better access to operational data would potentially provide a better understanding of historical trends that are currently not taken into account in the assessments using aggregate data; for example, obtaining a better understanding of declines in longline bigeye tuna CPUE which are not apparent without access to operational data;*
- *Fine-scale models, such as the SEAPODYM model, can only use operational level data as the fishery-dependent data input. Currently, the outputs of SEAPODYM models are constrained by the lack of operational data.*

35. Further, the independent review of the 2011 bigeye stock assessment (Iannelli et al., 2012) recommended the need to have arrangements for access to operational data from all fleets to identify changes in targeting and year-area interactions, analyses that cannot be undertaken with aggregate data.

**ANNEX 2 - Excerpt from the WCPFC-TCC10-2014-DP09 Rev 1. (<http://www.wcpfc.int/node/19709>)**

FFA MEMBER DELGATION PAPER – IMPLICATIONS OF DATA DEFICIENCIES ON THE COMMISSIONS COMPLIANCE AND MONITORING FUNCTIONS

In relation to Agenda Item 9.1 [at TCC10], FFA Members recommend that TC10 forward the following implications of data deficiencies on the Commission's compliance and monitoring functions to WCPFC1. FFA members identified the following impacts:

- i. high seas VMS data cannot be integrated with catch and effort data, such as to ensure interpretation of VMS data is correct, verify manual reporting information and verify operational data against VMS
- ii. transshipment reporting cannot be verified
- iii. the volumes of catch reported as transhipped cannot be reconciled with reported catches
- iv. the effectiveness of different mitigation methods on specific non-target species cannot be determined
- v. the WCPFC can't use operational data to ensure that the Commission's "3 vessel rule" for public domain data is respected, and therefore cannot provide a complete set of catch and effort data for the public domain
- vi. many aspects of the effectiveness of conservation measures cannot be assessed, especially where there are spatial elements
- vii. the effects of targeting shifts on catches and catch rates cannot be determined, reducing understanding of the effectiveness of measures, creating exactly the kind of uncertainty seen when evaluating the effectiveness of the bigeye catch limits for bigeye
- viii. some charter vessel catch attribution issues can't be resolved, and
- ix. the inability to distinguish between impacts in EEZs and high seas risks transferring greater burdens to SIDS.