

## Report on the Second Tuna Data Workshop (TDW-2)

7<sup>th</sup> – 11<sup>th</sup> April 2008  
SPC Headquarters  
Noumea  
New Caledonia



Report on the Second Tuna Data Workshop

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With special appreciation to the staff at SPC who played a major role in the background administration of the workshop especially Kay Parry and Helene Ixeko.

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## 1. Background

### 1.1 Introduction

The Oceanic Fisheries Programme (OFP) of the Secretariat of the Pacific Community (SPC) hosted the Second Tuna Data Workshop (TDW-2) for National Tuna Data Coordinators from Pacific Island Countries and Territories (PICTs), at SPC headquarters in Noumea, New Caledonia, 7<sup>th</sup>–11<sup>th</sup> April 2008. The following sections provide background information to explain why there is a need for such a workshop. Subsequent sections will outline the workshop design, content and outcomes.

### 1.2 The Workshop's foundations

The first Tuna Data Workshop (TDW-1) was one output of the Global Environment Facility's Oceanic Fisheries Management Project (OFMP), which endeavors to support PICTs in the initial operational phases of the new Western and Central Pacific Fisheries Commission (WCPFC, see Figure 1). The project's long-term aspirations are to improve both the information and knowledge on migratory fish resources of the Western and Central Pacific Ocean (WCPO) Warm Pool Large Marine Ecosystem; as well as aiming to improve the governance of those resources. The Japan Trust fund subsequently recognised the value of these tuna data workshops and provided its encouragement and financial support for further workshops.



**Figure 1 – The Western and Central Pacific Fisheries Commission Convention Area and the approximate EEZ boundaries of Pacific Island Countries and Territories.**

Workshop invitations are typically extended to participants from most PICTs (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tokelau, Tuvalu and Vanuatu). These countries recognise that they are the collective custodians of one of the world's largest marine ecosystems within which resides the world's largest tuna resource. They strive to manage it sustainably.

The precautionary approach to fishery management, which is now widely established and accepted by fishery managers around the world, requires good quality data. In recognition of this principle a specific component was included in the GEF project to improve tuna data monitoring. These associated monitoring workshops provide PICTs the opportunity to collectively explore, discuss and revise their own national tuna data collection, management and reporting practices, and the time to

assimilate the associated skills. Furthermore, as signatory members of the Forum Fishery Agency (FFA), SPC and WCPFC these countries and territories have a history of implementing standardised tuna fishery monitoring methods, and thus these workshops provide a beneficial forum to review and develop regional monitoring standards.

### **1.3 *Second Tuna Data Workshop (TDW-2) Objectives***

The second workshop (TDW-2) was designed to build on the experiences and knowledge shared at the first workshop (see [www.spc.int/oceanfish/Html/Meetings/TDW1/index.htm](http://www.spc.int/oceanfish/Html/Meetings/TDW1/index.htm)). Fresh themes were introduced and essential themes re-visited. The main objective of the second workshop was for participants to acquire the technical skills and the broad knowledge base required to produce annual catch estimates for their national fleets. The provision of annual catch estimates is the main data-reporting obligation to the WCPFC by Flag States. Another major theme, which followed on strongly from work done at TDW-1, was to give participants the room to share the current status of data collection, management and dissemination in their countries.

Specific workshop objectives —

- Assimilate and learn the procedures for compiling annual catch estimates;
- Describe and share the current status of the national tuna fishery data collection, management and dissemination systems;
- Document current resource constraints;
- Look at recent advances in prompting the legal provisions for data collection;
- Convey the fundamentals of data dissemination.

## **2. Workshop Design**

### **2.1 *Pre-Workshop Questionnaire***

A national report template for compiling information on the current status of tuna data system was sent out before the workshop (see Appendix 3). Participants were asked to complete and return these reports prior to the meeting. The intention of the national report was to give participants a standardised method of gathering and sharing information on the current status of collection, management and reporting in their countries. The report template was thought to be advantageous over the more traditional oral presentations, since participants were guided in what need to be covered, they had time to reflect on their answers, and they could spend time consulting with their colleagues before travelling to Noumea. The final electronic copy of the report was also an opportunity to share the information with a wider audience, as it was easily filed for future reference.

### **2.2 *Workshop Structure***

The set-up and design of the TDW-1 was approved by participants at that workshop, so this successful approach was repeated for TDW-2. For TDW-2, fewer sessions were spent in small working groups, although, an extended small working group session on calculating annual catch estimates ran over two days. The opening plenary session allowed countries to share notable achievements and challenges in their national data systems and the report template was circulated as a more comprehensive, permanent and standardised approach to capturing the existing situation in PICTs. OFP staff were always at-hand and fully employed near the end of the workshop updating participants in software and the database query systems developed by SPC to disseminate tuna fishery data.

### **2.3 *The basic structure of tuna data workshop sessions***

Each agenda item was introduced with a presentation covering the main points of the topic for that session. Where relevant, the theory and main requirements with respect to that topic were covered in the presentation, with examples taken from experiences in the region's tuna fishery data systems. Presentations were put together to ensure they did not exceed 30 minutes and therefore avoid the one-way involvement of facilitators.

After all presentations, there was a short period allocated for questions/comments in plenary. After some presentations, participants were asked to break-out into one of four groups to undertake an exercise related to the session. The aim of the group sessions was not only to complete the exercise, but by discussing experiences within each country, participants were able to learn what was happening elsewhere in the region. The facilitators moved around the groups to ensure the objectives of the exercise were clear and they also provided background/experiences from a regional point of view. The make-up of the groups was undertaken prior to the meeting and was done in such a way that experienced participants were mixed with in-experienced participants and participants with similar fisheries (e.g. purse seine fisheries) were grouped together. After most group sessions, the workshop would briefly reconvene in plenary to discuss the main outcomes of the discussions.

A CD containing the workshop documents, the workshop presentations and exercises, was provided to each participant at the close of the meeting. The same information was also made available on-line.

## **3. Workshop Content**

The agenda of the Workshop can be found in Appendix I and the list of participants can be found in Appendix II. The details of presentations made and exercises undertaken in each session are available on the SPC website, which includes the MS Powerpoint and MS Word files presented to the participants on CDs.

The following sections provide a brief summary of each session, including the significant issues raised during discussions.

### **3.1 *National Reports on the Status of Tuna Fishery Data Systems***

The majority of the workshop participants met the challenge of completing and submitting their report templates. A composite summary of these reports is provided below, while the individual country reports can be accessed on the meeting website.

All countries were confidently able to outline their fleet composition and the type of data they collect from them. The reports did highlight certain fleets who were universally noted to be tardy with their data submission. There was some hesitation among participants when it came to identifying the person in their office who has the overall responsibility of ensuring the data submissions were up to date, ordinarily the National Tuna Data Coordinator (NTDC). It seems the NTDC is more likely to be identified as a task rather than a position in most countries. The fact that this important assignment is being completed by personnel who were already over-burdened, or assigned to a number of persons was thought to an ineffective way of tackling the task. The group unanimously agreed that the duties and responsibilities of the NTDC should be promoted and relayed to senior managers.

Legal obligations for logsheet data collection are in place for foreign vessels, however the same cannot be said for unloading data, nor does this lawful collection of data extend to all national fleets. The legal provision of data was noted to improve the timelessness of data submission, but reminders and liaison were still thought to be necessary and effective. The reports showed that the collection of unloading data remains challenging; especially from national vessels who unload into foreign ports

and the effort to get the regional standard unloading form accepted. The templates also highlighted a lack of sufficient skills amongst countries to estimate logsheets coverage levels; although competency in this was addressed at the workshop and thus this issue was more or less resolved.

The collection of tuna fishery data coming from other sources i.e. fishing companies, sampling programmes and from lower impact fisheries (artisanal, sport fishing etc) was documented. The national template reports shows that there are varying degrees of success with national sampling programmes, however all countries certainly aim to have effective programmes in place and many are already achieving this. The story was somewhat similar for sources of data from lower impact fisheries but again, all countries showed a budding awareness of the issue and took time to reflect on how these deficiencies could be improved.

By liaising and communicating with industry their understanding and support for fishery monitoring improves. While many countries do communicate with industry by letter and / or through sporadic interaction at the quay-side, there seems to no regular liaison or communication policy to support timely reporting. Often this is due to the language barrier. Other data management areas which participants felt needed attention was their data registry system and MOUs to facilitate the transfer of data from national fleets fishing in other Pacific Island Flag State waters .

The need for improved data dissemination skills and comprehension was a recurring final theme of the report templates. A certain level of proficiency was available, but many countries called for further training especially in the associated software and SPC's data query systems. Pre-empting these issues a data dissemination component was scheduled during the workshop, one-to-one training was also provided and future training requests documented.

### **3.2 Preparation of Annual Tuna Catch Estimates**

The main focus of the TDW-2 was based around the theme of the preparation of annual catch estimates. Annual catch estimates are one of the types of data that must be submitted annually by WCPFC member countries as an obligation for reporting<sup>1</sup>. The main points that WCPFC member countries need to be aware of with this reporting obligation are –

- The obligation to report annual catch estimates for your NATIONAL FLEET. [the need to know exactly what vessels comprise your national fleet].
- The area that the annual catch estimates for the national fleet are required is the WCPFC CONVENTION AREA. The need to know what this area represents, and exactly what NATIONAL VESSELS fish in this area.
- The deadline for providing the Annual Catch estimates is 30<sup>th</sup> APRIL each year.

This session of TDW-2 covered the following:

- The provision of a working paper on the METHODS FOR DETERMINING ANNUAL CATCH ESTIMATES IN THE WCPFC TUNA FISHERIES  
(see [http://www.spc.int/oceanfish/Html/Meetings/TDW2/pdf/TDW-2%20WP-1%20Catch\\_Est\\_Methods.pdf](http://www.spc.int/oceanfish/Html/Meetings/TDW2/pdf/TDW-2%20WP-1%20Catch_Est_Methods.pdf))
- A presentation of the working paper which covered the following general areas :
  - What are “Annual catch estimates” and why are they important.
  - What is “Coverage” and why is it important.
  - A description of methods used to determine Annual catch estimate
- Exercises in determining annual catch estimates in several hypothetical tuna fisheries undertaken by participants in small working groups. The methodologies used and the results from the exercise were compiled by each group and then presented in plenary. The purpose of the exercise was to show participants a variety of scenarios and methodologies, for example, from data-poor to data-rich

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<sup>1</sup> See

[www.wcpfc.int/pdf/ScientificData%20to%20be%20Provided%20to%20the%20Commission%20\(as%20revised%20by%20WCPFC4\).pdf](http://www.wcpfc.int/pdf/ScientificData%20to%20be%20Provided%20to%20the%20Commission%20(as%20revised%20by%20WCPFC4).pdf)

situations, where annual catch estimates can be determined, highlighting the importance of good coverage of data.

- An individual exercise where countries were asked to prepare their estimates for the 2007 calendar year, with assistance provided by the conveners of the workshop.

The small-working groups worked well and additional time was allocated to the groups to allow them to complete the three exercises and prepare their presentations. A representative from each group provided a presentation of one of the three exercises of their choice. The presentations were of very high quality and showed that the basic concepts in determining annual catch estimates in a range of cases, taking into account the coverage of data, were taken on-board by the participants.

The individual exercises dealt with the preparation of annual catch estimates for 2007 for national fleets. Some participants were able to complete this exercise for their national fleet during the week of the workshop and thereby provide provisional 2007 estimates to the WCPFC before the April 30<sup>th</sup> deadline. Some participants did not have sufficient information available to complete their estimates during the week, but were able to establish a methodology during the week which enabled them to produce their catch estimates on return to their offices once the balance of fishery data for 2007 activities were obtained.

The main realization by participants coming from this exercise was that the data received at their offices did not necessarily represent the annual catch estimates and that further work was required to get an understanding of the coverage of the data provided. The determination of annual catch estimates therefore requires some effort towards obtaining the data that had not been provided, and accounting for the data that had not been provided, that is, improving and estimating the coverage of the data provided.

The preparation of annual catch estimates will continue to be a component of future Tuna Data Workshops.

### ***3.3 Legally-Enforceable Data Collection***

The first tuna data workshop TDW-1 looked at why support for data collection was essential. This topic was further developed during the TDW-2 with a specific presentation by Mr Wez Norris from FFA.

In some fisheries, data submission operates efficiently without imposing legal obligations on the fleet. Why then should PICTs Fishery Officers consider and promote legally enforceable data collection? Some of the advantages of establishing legal provision for the submission of data are (i) it increases the likelihood of receiving accurate timely data, (ii) it provides backup support and the legal authority to pursue un-submitted data, (iii) it gives an incentive to the government to prioritise data collection, and (iv) it provides an environment of consistency and certainty which should reduce confusion and increase overall efficiency.

The advice given to any country considering revising their fishery legislation was to ensure that a head of power is referred to, clearly state “the who, the what, the when and the to whom”, outline any consequences of non-provision of data, specify the approved format (forms) and ensure that procedures are in place to monitor a vessel’s compliance to the legislation i.e. tracking data submission.

Any proposed review of the legislation will be first made by a Senior Fisheries Officer, and the proposal should be submitted to Cabinet by the relevant Fishery Minister in the form of a Cabinet paper. When Cabinet approves the necessary amendments the Ministry of Fisheries will undertake the work. Assistance to review fisheries legislation can be provided by FFA either directly during the drafting of the legislation or through staff attachments.

A review of the current status of data collection legislation amongst FFA member countries revealed that most members have already noted a head of power in either their Act or their Regulations; however considerable variation between national legislation does exist, especially when it comes to where the legal provisions have been described i.e. at times in the Fisheries Act, at times in the license conditions etc. During the workshop, FFA and SPC proposed producing some “Best Practice Guidelines” to support more harmonised data reporting provisions amongst member countries.

### **3.4 *Problems with the Lack of Resources for Data Collection and Management***

Providing a solid data collection and management service does not come without its challenges. The hurdles are not always financial, as the list of problems compiled by the participants at TDW-1 shows. Nevertheless, financial challenges are often chronic and the most difficult to overcome for small island developing countries. A presentation looked at some of these financial challenges and attempted to offer solutions.

A number of ways to improve monitoring without adding cost were described. These include putting more onus on fishers to submit the data (through the legal provision of data) and re-directing staff effort towards the management and tracking of data. Industry can be motivated by providing incentives (i.e. tax breaks for the local fleet, provision of export certificates, timely data summaries) or through penalties. Regional organisations (SPC and FFA) do provide data management services (data entry etc.) to help PICTs and in certain cases industry have the capability to provide data in an electronic format.

In an effort to highlight and document the current fiscal resource problems and with the expressed intention of offering assistance, whenever possible, staff from SPC approached countries to document their individual resource needs. Many, but not all, countries felt they had no pressing personnel needs, although the recent introduction and acceptance of the TUFMAN database did suggest a budding requirement for data entry staff. A number of countries expressed concerns with the distribution of the task load among staff. They also noted that additional computers would give better access to the entry and reporting components of the TUFMAN database, and that additional high capability scanners will improve their capacity to transfer and archive hard copy forms.

Each countries current resource challenges can be found on the meeting website.

### **3.5 *Auditing Tuna Fishery Data Collection and Management Systems***

Audits are “*a formal, often periodic examination and checking of data or procedures to verify their correctness...*”. They are more commonly associated with the financial sector, but the same benefit can be gained by applying an audit to a national tuna fishery data collection system, a set of procedures used to manage tuna fishery data, or the quality of a database system used to process and store tuna fishery data, for example. The objectives of these proposed audits of tuna fishery data systems are to: document the current strengths and weaknesses of systems used to collect and manage tuna fishery data, to encourage further improvements, and to eventually certify and recognise robust and reliable data systems (i.e. a WCPFC audit certificate could be considered). The main benefit of auditing is that it results in more consistent data collection and management systems based on standardized procedures which will ensure that the WCPFCs requirements for data are satisfied and the users of the data (researchers) will be assured that they are dealing with quality, unbiased and representative data.

Auditing systems have yet to be developed but plans are in place to create auditing manuals which will allow both internal and external audits allowing the systematic checking and validation of many components of tuna fishery data systems. Many different facets of the system will be examined, for

example, there will be checks looking at items as diverse as data entry quality and completeness, whether industry liaison procedures been put in place, and if there is sufficient capacity (number of staff) and capability (training) available.

### 3.6 Disseminating Tuna Fishery Data

To compliment the work done on compiling annual catch estimates and to encourage participants to reflect on the process of producing final written reports, while recognising the fact that many participants were preparing for imminent WCPFC National Fishery Reports deadlines, one workshop session was dedicated to the dissemination of tuna data.

Data dissemination is the process of extracting raw data from a database and combining it in such a manner that the results can be easily read and absorbed by the intended audience. Aggregated data may be disseminated in many forms; tables, graphs or maps etc. The final report will always be driven by the user’s need and should take into account not only the type of information that has been requested but also the reader’s knowledge and ability to absorb the information. Some regular but important reports generated from national tuna data will be; national summary reports, WCPFC reporting obligations (i.e. for the scientific and technical committees), data reports for regional and stock assessments and ecological risk assessment reports.

When compiling data, certain points must be kept in mind; the data must be extracted correctly, a full explanation of the meta-data should be included, the data should be delivered on time and in a useable format and at all times confidentiality must be respected.

Having a reporting plan or schedule for reports is advised as “best practice”. Reporting plans can help improve awareness among team members about what is required to ensure that all the necessary tuna data system tasks are complete and validated before the final report is assembled. Some items that could be included in such a list include the report title, the type of meta-data required, if authorization is required and by whom, the persons responsible for each task, the date required, the person who will receive the report and the procedures for filing and recording each report output.

2. Reporting obligations to the WCPFC		
2.1 Provision of Scientific data to the WCPFC		
Date Required	30 <sup>th</sup> April each year	
Data summary sent to	WCPFC Executive Director and the Data Manager	
Data summary files under	"WCPFC Data provisions"	
Data Summary required	Procedures for preparing data	Summary prepared by
1. Annual Catch and effort estimates by gear and species for national fleets fishing in the WCPFC Convention Area	Determine coverage of Logsheets/Unloadings data and apply a raising factor where appropriate. Document procedures for determining coverage.	NTDC
2. Operational catch/effort data by gear, species, time and area for national fleets fishing in the WCPFC Convention Area	(these data are provided to SPC for processing during the year)	NTDC and SPC
3. Aggregate size composition data by gear, target species, time and area for national fleets fishing in the WCPFC Convention Area	(these data are provided to SPC for processing during the year)	NTDC and SPC

Figure 2. Example of a Dissemination Schedule / Plan

#### **4. Recommendations from the Workshop**

The wrap-up session of the workshop presented the opportunity for participants to put forward any recommendations for future work and highlight significant issues with respect to tuna data. The conveners of the workshop provided a list of issues that were raised during the workshop by participants that could be formulated into recommendations. The workshop participants discussed and considered these issues and the following recommendations were formulated and agreed on by workshop participants.

1. Some SPC/FFA member countries have national fleets based in other Pacific Island countries and have problems obtaining logsheet and unloadings data covering these vessels for the purpose of estimating annual catches for their national fleet, which is a member-country reporting obligation of the WCPFC.
2. SPC/FFA member countries also have problems obtaining logsheet and unloadings data for foreign fleets fishing in their EEZ that are based in, and/or offload their catches in other countries. These data are required to estimate annual catches within their EEZ.
3. The workshop recommends that these issues be raised at relevant regional meetings so that mechanisms to facilitate the access to these data can be improved in the future.
4. The workshop recommended that the organizers consider developing resource material that will allow countries to be better prepared for future audits on their tuna data collection and management systems. It is suggested that a draft of auditing procedures be developed and sent to member countries for comment.
5. The workshop recommended that the results of the current FFA project on the structure of the legal obligations in FFA member-country data collection systems be disseminated as soon as possible.
6. The workshop recommended that FFA and SPC work together to prepare guidelines for countries to follow if they wish to introduce or revise legal obligations for reporting in their data collection regime. The guidelines would deal with both the process for countries to follow, and provide good examples of data collection structures.
7. The workshop recommended that SPC and FFA explore ways to improve the awareness and support at senior management levels for the work undertaken by the National Tuna Data Coordinator (NTDC), highlighting the importance in coordinating the collection and management of the different types of tuna fishery data.

Unfortunately, the TDW-2 did not have time to review the progress of status of recommendations to come from TDW-1. The status of the recommendations from TDW-1 and TDW-2 should be reviewed during TDW-3.

#### **5. Assessment of Workshop**

As in TDW-1, the workshop did not aim to assess the performance of each participant but hoped to gain a basic indication by informally evaluating the participants understanding of the principles presented during the week, the general involvement of participants in group and plenary discussions, the completion of the exercises, the provision of annual catch estimates for 2007 and the progress made on the National Procedures document.

The completion of the National Reports on the status of Tuna Data systems was a measure of success, and while not all countries provided these reports, the information contained in the reports that were submitted will provide very useful review material when developing future work plans, both at the regional and national level.

The most compelling measure of success of the TDW-2 workshop was to compare the performance of countries in providing their annual catch estimates for 2007 to the WCPFC (due on 30<sup>th</sup> April 2008) with the performance last year. The 2006 Annual catch estimates were provided by only one country (out of the 15 flag-state countries with participants at TDW-2) prior to the deadline of 30<sup>th</sup> April 2007. In contrast, 12 out of 15 flag-state countries had provided their 2007 annual catch estimates by the 30<sup>th</sup> April 2008 deadline, which was a significant improvement compared to the previous year. Indeed, all but one of the 15 countries had provided their 2007 annual catch estimates by one week after the deadline. In addition to the improvement in the timeliness of the provision of data, the quality of data had also improved with most countries providing an indication of the source and coverage of data and the methods used to determine the annual catch estimates.

Taking into account the feedback from participants and a review of the workshop by facilitators, the following points should be considered for future workshops:

- Ideally, the timing of the next workshop (TDW-3) should be in April 2009, corresponding to the period when preparation of annual catch estimates for the 2008 calendar year is undertaken. Work on annual catch estimates should remain as an ongoing priority focus of future TDWs until data collection and management systems are appropriately developed and established and member countries feel confident of undertaking this work independently.
- The material presented during TDW-1 and TDW-2 have been made available on the OFP's web site and there should be consideration of further enhancing this type of material to assist member countries. For example, the provision of self-auditing tools, when these have been developed would be beneficial to member countries.
- The group sessions, exercises and presentations proved to be very useful and a good learning mechanism and should be maintained and further developed for future workshops;
- Consider having better resource material available (perhaps producing the resource material from TDW-1 and TDW-2 as a formal document/manual).

## 6. References

Forum Fisheries Agency (FFA). (2004). Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean.

Anon. (2005a). Report Of The First Regular Session Of The Scientific Committee Of The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean (SC2). Noumea, New Caledonia 8 to 19<sup>th</sup> August 2005.

Anon. (2005b). Report of the Second Regular Session of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Pohnpei, Federated States of Micronesia. 16-18 December 2005.

## **APPENDIX 1 – Annotated Agenda**

### **SECOND TUNA DATA WORKSHOP (TDW-2)**

7-11 April 2008  
Noumea, New Caledonia

#### **ANNOTATED AGENDA**

*Monday 7<sup>th</sup> April 2008*

#### **AGENDA ITEM 1      OPENING OF THE WORKSHOP**

- 1.1      Welcome address**
- 1.2      Adoption of agenda**
- 1.3      Workshop arrangements**
- 1.4      Purpose of the Workshop and expected outputs**

#### **AGENDA ITEM 2      NATIONAL REPORTS ON THE STATUS OF TUNA FISHERY DATA COLLECTION, MANAGEMENT AND DISSEMINATION**

Participants will be asked to prepare a national report prior to the meeting. Participants will also be asked to complete/update their National data collection/management responsibilities matrix and provide these documents prior to the meeting.

Participants will be encouraged to provide a brief presentation during this agenda item.

**GROUP EXERCISE** : Participants will break up into small groups to discuss the contents of their national reports and certain issues highlighted in the National Reports. The work of the small groups will be guided by an exercise sheet which will require the group to work through questions and common issues and write a response which will be presented to plenary by a spokesperson from the group.

**MAIN OUTCOMES** : Synthesis of a list of common points from the small group sessions, highlighting the main areas for attention. Discussion may provide some ideas on how to resolve any problems.

*Tuesday 8<sup>th</sup> - Wednesday PM 9<sup>th</sup> April 2008*

#### **AGENDA ITEM 3      PREPARATION OF ANNUAL TUNA CATCH ESTIMATES**

Presentations in plenary will cover the following items :

- A review of the obligations to produce Annual Catch Estimates
  - National and Regional obligations and requirements (the basis of all other data types)
  - Review of Annual catch estimates in the latest version of "Scientific Data to be provided to the Commission"
    - National Fleets operating in the WCPFC Convention Area
    - Foreign fleets operating in waters of national jurisdiction
  - Review of the WCPFC Scientific Committee National Fisheries Report Template
- Importance of "Coverage"
- Methods for determining Annual Catch Estimates for National fleets (Working Paper and presentation)

**GROUP EXERCISE** : Small working groups will be asked to estimate annual catch estimates through a series of exercises. The first exercises will involve coming up with estimates based on very little

information, and successive exercises will provide progressively more information, which will be demonstrated to participants the value of having the best information possible. The exercises will also require participants to prepare powerpoint slides summarizing their work and a spokesperson from each small group will then present their findings in plenary.

**INDIVIDUAL EXERCISE** : Each participant will be asked to determine catch estimates for 2007 using the information they have from their fishery. (**Participants have been asked to bring their TUFMAN, or other Tuna fishery databases, and any other summarised data/information that will be used in the exercise to estimate annual catches**).

Participants will be asked to prepare a brief document which includes the following items – participants will be guided by an exercise sheet:

- Determine which data are to be used
- Determine the coverage of the available data
- Identify what method(s) should be used
- Identify problems/gaps in the available data used to produce estimates
- Determine how accurate the estimates are (required by the WCPFC)
- Are the estimates provisional or final ?
- Who needs to authorize the provision of the estimates to WCPFC

**MAIN OUTCOMES** : Participants will be familiar with the importance of coverage and some of the methods used for determining annual catch estimates. The successful completion of EXERCISE #1 will entail the small groups coming up with the adequate results and presentations which will demonstrate their understanding of the concepts.

The successful completion of EXERCISE #2 will entail each country producing at least a provisional estimate for their national fleet, or a provisional estimate for the catch of a foreign fleet fishing in their waters (for countries that don't have a national fleet), in addition to an explanation of the coverage and type of data used, and the method used to estimate the catch.

*Wednesday (PM) 9<sup>th</sup> April 2008*

#### **AGENDA ITEM 4 LEGALLY-ENFORCEABLE DATA COLLECTION**

A brief presentation covering the following items :

- What does “legally-enforceable” data collection mean ?
- Why is it important (...it will make the provision of data much easier !)
- How is this achieved ?
- Steps that you should undertake to start the review of necessary legislation
  - How to bring this to the attention of senior fisheries staff
  - List of countries who would welcome regional assistance through FFA
- Examples of where this has been done successfully

**MAIN OUTCOMES:** A recommendation of how to proceed from here.

#### **AGENDA ITEM 5 PROBLEMS WITH THE LACK OF RESOURCES FOR DATA COLLECTION AND MANAGEMENT**

Continuing on from TDW-1 and discussion on the National reports, a brief presentation and discussion will cover the following items :

- What are the typical problems in this area (a review by country; referral to TDW-1 outcomes...)?
- Problems in restructuring – where and how does the NTDC fit in ?
- Identifying human resource priorities.

- Examples of how the lack of resources has been addressed throughout the Pacific Islands (examples from some countries)
- Steps that could be undertaken -
  - How to bring this to the attention of senior fisheries staff
  - Regional assistance through SPC and FFA
  - Available regional funding
  - How to write proposals, or contribute to writing proposals

**MAIN OUTCOMES :** A list of main problems and solutions – are these the same as TDW-1 ? Has there been any progress since TDW-1 ? How do we realistically go about addressing the problems in the inter-sessional period (i.e. next year or so)

## **AGENDA ITEM 6      AUDITING TUNA FISHERY DATA COLLECTION AND MANAGEMENT SYSTEMS**

A short presentation will introduce the concept of Auditing and the way it may be approached in the future.

- Why is there a need to audit systems ?
  - Improves the quality and coverage of data available to the WCPFC
  - Benefits and obligations of auditing
- How will audits be undertaken in the future ?
  - The development of a standard audit process
- Audit of Data collection systems
- Audit of Data management systems

*Thursday 10<sup>th</sup> April 2008*

## **AGENDA ITEM 7      DISSEMINATING TUNA FISHERY DATA**

A brief presentation will cover the following items :

- Revisiting concepts introduced in TDW-1
- Obligations and requirements for reporting
  - Regionally – WCPFC
  - Nationally (participants will be asked to prepare a list of national reporting requirements prior to the meeting ...)

**EXERCISE** – Participants will be asked to produce a Schedule for the dissemination of tuna fishery data based on regional and national requirements and obligations. Participants will be guided by a template to do this work and assisted by OFP staff. (The concept of a data dissemination schedule was introduced in TDW-1, but not completed due to the lack of time). The purpose of this exercise is to ensure participant understand what is required in the data dissemination schedule.

Prior to the meeting, participants will be asked to prepare a list of

1. Problems they are having with their TUFMAN (and other database systems)
2. Reports or other items that they would like to see added into TUFMAN Training in use of Tools for dissemination

**EXERCISE** – A Computer Lab session will be conducted over for least 0.5 days and will focus on the list of problems and features according to the list produced by the participants. Training will be customized on the participants needs and may cover, but not be restricted to, the following database systems/software :

- CES

- TUFMAN
- NSAP databases system
- Samoa database system
- EXCEL
- GIS software
- Etc.

**MAIN OUTCOMES :** The lists for problems in TUFMAN and future needs in TUFMAN will assist to enhancing this system. Participants will hopefully be more familiar with the data dissemination tools available.

Participants will have advanced their data dissemination schedule, which should be completed and incorporated into their National Procedures Document.

***Friday (AM) 10<sup>th</sup> April 2008***

**AGENDA ITEM 8      Review of work undertaken**

- 8.1      Review of Annual Catch Estimates by country
- 8.2      Review of data dissemination schedules by country
- 8.3      Review of the suggested enhancements to TUFMAN and other dissemination tools
- 8.4      Review of other issues raised during the workshop
- 8.5      Discussion and formulation of recommendations from the workshop

**AGENDA ITEM 9      CLOSE OF MEETING**

## APPENDIX II – Workshop Participants List

### SECOND TUNA DATA WORKSHOP (TDW-2)

7-11 April 2008  
Noumea, New Caledonia

#### LIST OF PARTICIPANTS

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## APPENDIX III – Template for the National Report

### SECOND TUNA DATA WORKSHOP (TDW-2)

7-11 April 2008  
Noumea, New Caledonia

#### Template for the NATIONAL REPORT

*The National Report provides information on the current status of collection, management and dissemination of data in your country and we have provided this template to assist you prepare your report. The main theme of TDW-2 will be the production of annual catch estimates, and while all types of data will be covered during TDW-2, some of the questions below have been designed to obtain more information essential to the production of annual catch estimates.*

*Simply respond to each question in the tables below in the space provided. Please refer to other people in your office if you are unsure or can not provide a comprehensive answer to any question.*

*The information contained in your national report will be used and discussed during the TDW-2, so it **must** be completed prior to coming to the Workshop. Participants are encouraged to send back this completed template as soon as possible. The latest version of the data collection/management “responsibilities matrix” should be sent at the same time.*

*Participants may provide additional relevant information and are encouraged to provide a presentation of the tuna fishery data collection, management and dissemination systems during the workshop, but a presentation is not essential.*

## 1. INTRODUCTION

*This section serves to provide an overview of your tuna fishery by briefly describing your national fleet that operates in the WCPFC Convention Area (WCPFC flag-state responsibilities) and foreign fleets that operate in your waters (WCPFC Coastal and Port State responsibilities). A broad indication of the extent of your data collection and management systems is also provided for in this section.*

1.1 Provide a brief overview of your national tuna fisheries, including target species in each case <ul style="list-style-type: none"> <li>o Commercial Fisheries</li> <li>o Non-commercial Artisanal / recreational Fisheries</li> </ul>																												
1.2 Provide a brief description of your National fleet that operates in the WCPFC Convention Area, with a list of active vessel numbers by gear covering 2007																												
1.3 Provide a brief description of the foreign fleets licensed to fish in your EEZ, with a list of active vessel numbers by gear and flag covering 2007																												
1.4 Indicate the data collected in your country and whether the regional standard data collection forms are used.	<table border="1" data-bbox="965 862 1465 1182"> <thead> <tr> <th></th> <th>Y/N ?</th> <th>Regional Forms ?</th> </tr> </thead> <tbody> <tr> <td>Licensing data</td> <td></td> <td></td> </tr> <tr> <td>Logsheet data</td> <td></td> <td></td> </tr> <tr> <td>Unloadings data</td> <td></td> <td></td> </tr> <tr> <td>Observer data</td> <td></td> <td></td> </tr> <tr> <td>Port Sampling data</td> <td></td> <td></td> </tr> <tr> <td>Fishing Trip Log</td> <td></td> <td></td> </tr> <tr> <td>Telex data</td> <td></td> <td></td> </tr> <tr> <td>VMS</td> <td></td> <td></td> </tr> </tbody> </table>		Y/N ?	Regional Forms ?	Licensing data			Logsheet data			Unloadings data			Observer data			Port Sampling data			Fishing Trip Log			Telex data			VMS		
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1.5 Provide any additional information																												

## 2. NATIONAL TUNA DATA COORDINATOR (NTDC)

*The NTDC needs to be familiar with, and understand the purposes of all types of tuna fishery data collected within their country, and how each type of data relates to the other data types. The NTDC will provide advice in these areas to stakeholders within their country (e.g. other fisheries division staff and the industry).*

*The NTDC ensures the smooth flow of quality-checked data from the point of collection through to point of dissemination by liaising with industry and other fisheries division staff. Data management tools are used on a regular basis to identify and resolve data flow issues.*

*This section provides an overview of the work of the National Tuna Data Coordinator in your country.*

2.1.1 Who is the nominated NTDC in your country ?	
2.1.2 What is the role of the NTDC in your country ? (List the main areas of work that the NTDC covers)	
2.1.3 Is the position and work of the NTDC integrated into your organization ?  Is the position supported and functioning within the organizational structure ?  Is the role of the NTDC understood by supervisors and other staff members?  Explain any problems in this regard.	
2.1.4 Does the NTDC in your country have responsibilities other than those related to that stated in the first paragraph of this section ?  Please list the other responsibilities.	
2.1.5 Is the NTDC able to achieve the tasks assigned to him/her, or do they rely on additional staff support, or outside help (e.g. SPC) ?	
2.1.6 Are the duties of other staff in your organization aligned with the role of the NTDC ?  (In your response, describe any problems or ways to improve the situation)	
2.1.7 Is there a clear intention to have the NTDC position incorporated as a permanent position into your organization, funded by your government office, in the future ?  If yes, provide some evidence of this occurring.	

### 3. DATA COLLECTION

*This section serves to describe the current status of your “data collection” systems.*

#### *Collection of Operational (Logsheet) data*

<p>3.1.1 Briefly describe the legal obligations for the provision of logsheets ...</p> <ul style="list-style-type: none"> <li>○ covering your national fleets fishing throughout the WCPFC Convention area</li> <li>○ covering foreign fleets fishing your EEZ</li> </ul>	
<p>3.1.2 Full (100%) coverage of logsheets is required. Indicate the <b>approximate</b> current coverage of logsheet data provided for ...</p> <ul style="list-style-type: none"> <li>○ your national fleets fishing throughout the WCPFC Convention area</li> <li>○ foreign fleets fishing in the national EEZ</li> </ul> <p>Briefly, how do you determine the coverage ?</p> <p>If coverage is not close to, or at 100%, explain the problems in achieving this target :</p>	
<p>3.1.3 Are logsheet data provided in a timely manner ?</p> <p>What are the problems regarding the timeliness of logsheet data provisions ?</p> <p>Are certain fleets more of a problem than others ?</p>	
<p>3.1.4 Are resources in your office currently adequate to ensure the management of logsheet data collection ? (refer to the responsibility matrix)</p> <ul style="list-style-type: none"> <li>○ Liaison with industry ?</li> <li>○ Data quality checking of the hard-copy logsheet ?</li> <li>○ Other duties (e.g. scanning, filing) ?</li> </ul>	
<p>3.1.5 Indicate any other problems you have with the Logsheet data collection process</p>	
<p>3.1.6 Provide any additional information</p>	

### 3.2 Collection of Unloadings (landings) data

<p>3.2.1 Briefly describe the legal obligations for the provision of unloadings data ...</p> <ul style="list-style-type: none"> <li>○ covering your national fleets fishing throughout the WCPFC Convention area</li> <li>○ covering foreign fleets fishing unloading in ports within your EEZ</li> </ul>	
<p>3.2.2 Full (100%) coverage of unloadings data is required. Indicate the <b>approximate</b> current coverage of unloadings data provided for ...</p> <ul style="list-style-type: none"> <li>○ your national fleets fishing throughout the WCPFC Convention area</li> <li>○ foreign fleets fishing in the national EEZ</li> </ul> <p>Briefly, how do you determine the coverage ?</p> <p>If coverage is not close to, or at 100%, explain the problems in achieving this target :</p>	
<p>3.2.3 Are data provided in a timely manner ?</p> <p>What are the problems regarding the timeliness of data provisions ?</p> <p>Are certain fleets more of a problem than others ?</p>	
<p>3.2.4 Are resources in your office currently adequate to ensure the management of unloadings data collection ? (refer to the responsibility matrix)</p> <ul style="list-style-type: none"> <li>○ Liaison with industry</li> <li>○ Data quality checking of the hard-copy unloadings form ?</li> <li>○ Other duties (e.g. scanning, filing) ?</li> </ul>	
<p>3.2.5 Indicate any other problems you have with the UNLOADINGS data collection process</p>	
<p>3.2.6 Provide any additional information</p>	

### 3.3 Collection of Observer and Port Sampling data

*This section is not as extensive as the previous sections since it has been covered recently in the Regional Observer Coordinators workshop and the theme for this workshop is data related to the production of annual catch estimates.*

<p>3.3.1 Do you have a fully functioning port sampling programme –</p> <p>If <b>YES</b> – indicate the <b>approximate</b> coverage of port sampling by gear type (target = 20%).</p> <p>If <b>NO</b>, briefly list the reasons and/or problems that prevent your country from having a fully functioning port sampling programme. For example, lack of funds, lack of human resources, non-compliance, logistical problems, etc.</p>	
<p>3.3.2 Do you have a fully functioning observer programme –</p> <p>If <b>YES</b> – indicate the <b>approximate</b> coverage of observer activities by gear type (target = 20%).</p> <p>If <b>NO</b>, briefly list the reasons and/or problems that prevent your country from having a fully functioning observer programme. For example, lack of funds, lack of human resources, non-compliance, logistical problems, etc.</p>	

### 3.4 *Collection of other types of data used to estimate annual catches*

<p>3.4.1 Briefly describe other types of data collected in your country (not mentioned above) that are used in the process of estimating annual catches. For example,</p> <ul style="list-style-type: none"> <li>○ Annual Fishing Trip and Port visit log</li> <li>○ Boat census information</li> <li>○ Port Authority information</li> <li>○ Artisanal FAD Fishing log</li> <li>○ Canoe Fishing Logsheet</li> <li>○ Sportfishing logbook</li> <li>○ Others ?</li> </ul>	
<p>3.4.2 If other types of data are collected, briefly described how they are used in the process of estimating annual catches.</p>	
<p>3.2.3 Are these data reliable ?</p> <p>Are these data provided in a timely manner ?</p>	
<p>3.4.4 Are there other types of data, useful in the process of determining annual catch estimates, that are not collected, but could potentially be collected with more resources ?</p> <p>What types of data ?</p> <p>What additional resources are required ?</p>	
<p>3.4.5 Provide any additional information</p>	

## 4 DATA MANAGEMENT

*This section provides some background on the status of data” management” systems established in your country.*

### 4.1 Liaison with fishing companies

<p>4.1.1 In your office, who is/are responsible for Liaison with fishing industry in relation to the provision of, and problems with data ?</p> <p>How often are data requested from fishing companies (list by data type) (through the liaison process) ?</p> <p>How often do is the coverage of data provided checked, and follow-up with the companies in regards to outstanding data undertaken ?</p> <p>Briefly describe the process for checking and then requesting the provision of data.</p>	
<p>4.1.2 Are the obligations and the process of liaison clearly stated and understood by the fishing company ?</p> <p>Are there any problems experienced with the liaison process ? If so, please describe.</p>	
<p>4.1.3 Are there a mechanisms to assist the fishing industry in the following situations :</p> <ul style="list-style-type: none"> <li>○ Provision of training and/or information resources for conducting data collection when new forms are introduced, or new vessels enter the fishery</li> <li>○ Provision of reports to inform fishing industry of the status of the fishery from a broader perspective</li> </ul> <p>Briefly describe why this may not have been done, or any problems that may hinder the success of implementing such mechanisms.</p>	
<p>4.1.4 Do you have national fleet vessels based or fishing in other countries ?</p> <p>Do you have a liaison process with the country where your fleet is based so that you regularly receive logsheets and unloadings data for vessels in your fleet ?</p> <p>If YES, then describe the liaison process. If NO, then describe the problems in getting the logsheets and unloadings data.</p>	

4.2 Management of hard-copy data

<p>4.2.1 Do you have a system to record or register each receipt of hard-copy data that arrives in your office ?</p> <p>Briefly describe this system.</p>																			
<p>4.2.2 Does you office enter the data into a database system ?</p> <p>What database system do you use to manage your tuna fishery data ?</p> <p>Indicate in the table to the right whether data are entered in your office, sent to SPC for processing or not entered.</p>	<table border="1"> <thead> <tr> <th data-bbox="667 517 906 577"></th> <th data-bbox="909 517 1401 577">Data Entry system Name the system / "SPC" / "Not entered"</th> </tr> </thead> <tbody> <tr> <td data-bbox="667 580 906 611">Licensing data</td> <td data-bbox="909 580 1401 611"></td> </tr> <tr> <td data-bbox="667 613 906 645">Logsheet data</td> <td data-bbox="909 613 1401 645"></td> </tr> <tr> <td data-bbox="667 647 906 678">Port Sampling data</td> <td data-bbox="909 647 1401 678"></td> </tr> <tr> <td data-bbox="667 680 906 712">Unloadings data</td> <td data-bbox="909 680 1401 712"></td> </tr> <tr> <td data-bbox="667 714 906 745">Observer data</td> <td data-bbox="909 714 1401 745"></td> </tr> <tr> <td data-bbox="667 748 906 779">Fishing Trip Log</td> <td data-bbox="909 748 1401 779"></td> </tr> <tr> <td data-bbox="667 781 906 813">Telex data</td> <td data-bbox="909 781 1401 813"></td> </tr> <tr> <td data-bbox="667 815 906 846">VMS</td> <td data-bbox="909 815 1401 846"></td> </tr> </tbody> </table>		Data Entry system Name the system / "SPC" / "Not entered"	Licensing data		Logsheet data		Port Sampling data		Unloadings data		Observer data		Fishing Trip Log		Telex data		VMS	
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Telex data																			
VMS																			
<p>4.2.3 Do you have a system to send tuna fishery data to SPC ?</p> <p>Briefly describe this system, including :</p> <ul style="list-style-type: none"> <li>o Whether the data are "scanned", "photocopied" or sent in hard-copy form</li> <li>o Do you keep track of what data have been sent</li> <li>o Are scanned data sent via the internet or sent on CD</li> <li>o How often are data sent (...do you have a regular schedule)</li> <li>o Do you have someone and procedures in place to follow up on data requests from SPC (re-send, re-scan etc)?</li> </ul>																			
<p>4.2.4 Has hard-copy data gone astray in the past?</p> <p>Outline some of the reasons why things went wrong.</p>																			

### 4.3 *Data entry and quality control*

<p>4.3.1 Does your office have a strong reasons to enter tuna fishery data ?</p> <p>Does your office have resource, or other problems that hinders the processing of tuna fishery data ?</p> <p>Briefly explain the situation.</p>	
<p>4.3.2 Does your office have a systematic set of procedures to ensure the quality and coverage of data entered is maintained ?</p> <p>Briefly describe the set of procedures to ensure data quality control.</p>	
<p>4.3.3 Do you have problems with your database system that hinder the data entry and quality control processes ?</p> <p>For example,</p> <ul style="list-style-type: none"><li>○ The system is not fully understood by the staff using it</li><li>○ The system is incomplete</li><li>○ The system has "bugs" that prevent full utilization</li></ul> <p>Briefly describe any problems.</p>	

## 5 DATA DISSEMINATION

*This section provides some background on the status of data" dissemination" systems established in your country.*

### 5.1 Schedule of data dissemination

<p>5.1.1 In your offices is there an established schedule for producing summarized reports, graphs, maps for inclusion in country reports, access negotiation briefs, etc. ?</p> <p>If <b>YES</b>, then briefly list the types of reports, and when they are required each year.</p> <p>If <b>NO</b>, indicate the problems in establishing a schedule.</p>	
<p>5.1.2 The annual provision of data to the WCPFC is an important task required by member countries – data must be provided prior to 30<sup>th</sup> April each year.</p> <p>Describe the process involved in preparing the data provision to the WCPFC, in particular, the preparation of Annual catch estimates.</p> <p>List the problems involved.</p>	
<p>5.1.3 How do you produce each report, when required ?</p> <p>For example,</p> <ul style="list-style-type: none"> <li>○ are they simply produced directly from a database system,</li> <li>○ are the data manually extracted from the database,</li> <li>○ are summarized data provided by the fishing company, or</li> <li>○ are data manually compiled from hard-copy information.</li> </ul> <p>Describe for each report that needs to be produced and how they are produced.</p>	
<p>5.1.4 Are there certain reports that are required, but can not currently be produced ?</p> <p>Describe the reports and the reasons why they can't be produced.</p>	