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**Update on capacity building and stakeholder engagement activities for WCPFC  
harvest strategies**

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This paper is an updated version of WCPFC-SC18-2022/MI-IP-10. The first WCPFC Science-Management Dialogue meeting recommended that this paper be forwarded to WCPFC19.

All changes to the paper have been notified in the text. The main changes are the first meeting of the Science-Management Dialogue, the availability of two new training PIMPLE videos, and the recruitment and arrival of Raijeli Natadra as a Pacific Island Fisheries Professional in the SPC harvest strategy team.

## Contents

<b>1 Stakeholder engagement and capacity building objectives</b>	<b>4</b>
<b>2 Current stakeholder engagement and capacity building activities</b>	<b>5</b>
<b>3 Challenges</b>	<b>7</b>
<b>Acknowledgments</b>	<b>8</b>
<b>A Harvest strategy poster</b>	<b>10</b>

# 1 Stakeholder engagement and capacity building objectives

WCPFC17 agreed to a workplan for the adoption of harvest strategies for WCPO skipjack, bigeye, yellowfin and South Pacific albacore tuna. A key component of this work is stakeholder engagement and capacity building for WCPFC members, as during the harvest strategy development process WCPFC members are required to make a range of informed decisions. These decisions include the management objectives, performance indicators, management strategy evaluation (MSE) framework, development of candidate management procedures (MP) and harvest control rules (HCRs), and the selection of a preferred MP. Many of these decisions require a two way dialogue between scientists and decision makers from member countries and territories.

SPC supports the development of WCPFC harvest strategies through the New Zealand Ministry of Foreign Affairs and Trade (MFAT) funded project “Pacific Tuna Management Strategy Evaluation”. Under this project, a stakeholder engagement strategy was developed in June 2018, following discussions between SPC and FFA, and has been used to guide project engagement activities. This included a suggestion to initialise a science-management dialogue (SMD) process for fishery managers and the wider stakeholder group to define key aspects of the harvest strategy process (SPC, 2018; SPC and Secretariat, 2018). The first SMD was held in August 2022 after the SC.

Feedback from WCPFC members indicates that capacity building remains a high priority and is needed for the harvest strategy workplan to be progressed. In particular, the need was recognised for additional time to build capacity and a sound understanding of harvest strategy components and consequences among stakeholders.

The focus of the capacity building and stakeholder engagement activities have changed as the development of the harvest strategies has progressed. The current harvest strategy workplan suggests that the management procedure (MP) for WCPO skipjack will be adopted by the end of 2022. Training activities therefore need to target decision makers and provide advice around the use of performance indicators to select preferred MPs, based on how well they may achieve management objectives.

This report updates WCPFC-SC17-2021/MI-IP-02 (Scott et al., 2021) and describes the stakeholder engagement and capacity building activities undertaken by SPC since August 2021, with support from FFA, the challenges that are faced, and proposed future activities.

Members are encouraged to contact SPC, for example through the harvest strategy email address (fame-harvest-strategies@spc.int), if they have any questions or would like to discuss any elements of harvest strategies.

## 2 Current stakeholder engagement and capacity building activities

### 2.1 National and regional workshops and seminars

Since 2018, 15 national capacity building workshops have been conducted, with support from FFA (Table 1). These workshops have typically been conducted over two or three days. However, it is possible to arrange shorter workshops. For example, an informal two or three hour talk over Zoom can be used to address specific topics and will be easier to organise.

Member	Date	Type
Kiribati	July, 2018	In person
Solomon Islands	October, 2018	In person
Federated States of Micronesia	March, 2019	In person
Marshall Islands	March, 2019	In person
Cook Islands	May, 2019	In person
Kiribati	September, 2019	In person
Fiji	February, 2020	In person
Tonga	March, 2020	In person
Papua New Guinea	March, 2020	In person
Tuvalu	October, 2020	On-line
New Caledonia	February, 2021	In person
Solomon Islands	May, 2021	On-line
Palau	June, 2021	On-line
French Polynesia	May, 2022	On-line
Federated States of Micronesia	June 2022	On-line

Table 1: National harvest strategy capacity building workshops conducted since 2018.

In the last year regional training workshops have been conducted with the PNA (on-line, June, 2022) and the FFA (hybrid on-line and in-person, June, 2022). Additionally, a training workshop was conducted under the West Pacific East Asia Project (WPEA) for members from Indonesia, Phillipines and Vietnam (hybrid on-line and in-person, June, 2022). Technical consultation workshops were conducted on-line with Japan (May, 2022) and with the EU (June, 2022).

SPC gave two online harvest strategy related seminars to WCPFC members on the 08/06/2022 and 07/07/2022. These seminars covered a broad range of harvest strategy related topics including how an MP works, the use of decision making tools to select MPs and mixed-fishery harvest strategy developments. Recordings of these seminars are available from the WCPFC website.

### 2.2 The First Science-Management Dialogue Meeting

The first WCPFC Science-Management Dialogue meeting was held 19th and 22th August 2022, after SC18 (WCPFC, 2022). The meeting included discussion on the prioritisation of candidate skipjack MPs, as well as the scope and scale of MPs for South Pacific albacore.

## 2.3 Capacity building tools

The interactive R-Shiny training tools developed by SPC have continued to be updated. These tools that allow users to explore the development and performance of HCRs and MPs have been used in training workshops. Self-guiding tutorials are also available via the tool websites to support learning outside of the workshops. These tools have been published in a peer-reviewed journal (Scott et al., 2022b).

The tools include:

- Introduction to Harvest Control Rules (<https://ofp-sam.shinyapps.io/AMPLE-intro-hcr/>)
- Introduction to Performance Indicators (<https://ofp-sam.shinyapps.io/AMPLE-measuring-performance/>)
- Comparing Performance of Management Procedures (<https://ofp-sam.shinyapps.io/AMPLE-comparing-performance/>)

## 2.4 Decision making tools

A key component of the harvest strategy process is selection of preferred MPs using performance indicators. To help facilitate this process for the skipjack MP, the interactive decision making tool developed by SPC, PIMPLE, has been updated. Recent updates include some mixed-fishery performance indicators (Scott et al., 2022a) and additional candidate HCRs.

The latest version can found here: <https://ofp-sam.shinyapps.io/PIMPLE2022/>

This tools allow stakeholders and managers to explore the results of the skipjack MSE simulations and compare the relative performance of the candidate MPs, and has been used in training workshops to support the MP selection process.

As mentioned above, members are encouraged to contact SPC if they would like additional support on using PIMPLE.

Since the submission of the original paper to SC (WCPFC-SC18-2022/MI-IP-10) two training videos have been produced that introduce how PIMPLE may be used to support the selection of preferred MPs. The videos are available here:

- PIMPLE tour (<https://www.youtube.com/watch?v=xs9aNuIPMqg>)
- PIMPLE demo (<https://www.youtube.com/watch?v=zhQCmThqStQ>)

## 2.5 Harvest strategy Moodle course

Moodle is a widely used on-line learning platform that facilitates the delivery of training materials in multiple formats. An ‘Introduction to Harvest Strategies’ training course has continued to be developed using the SPC’s Moodle site. This has become a key source of reference and learning material for WCPFC members and currently contains information on many aspects of harvest

strategies, including management objectives, performance indicators, reference points, MPs and MSE.

It is possible to access the course from the main page by using a guest login (<https://spc.learnbook.com.au/login/index.php>).

## **2.6 Pacific Island Fisheries Professionals**

Pacific Island Fisheries Professionals (PIFP) are one year positions at SPC where the PIFP works alongside SPC staff on a specific project, before returning to their home country. In contrast to the training workshops described above, the PIFP positions provide a long-term type of capacity building but for only a very small number of people.

In 2021 a new PIFP was recruited to the SPC harvest strategy team. Unfortunately, Covid-19 related travel restrictions prohibited their arrival at SPC, a key requirement of the position, and they sadly withdrew from the position in 2022.

A new PIFP position was subsequently created and in November 2022 the SPC harvest strategy team was very pleased to welcome Rajjeli Natadra from Fiji.

## **2.7 Harvest strategy training film**

A harvest strategy training film was completed and released by SPC in 2021 and is available on the SPC YouTube channel <https://www.youtube.com/watch?v=zM3B9DLmtZg>. The film featured performances from many familiar faces from around the region and has been widely viewed.

An additional series of short information films are planned that will complement the other engagement material.

## **2.8 Additional engagement material**

A harvest strategy poster was distributed to members and stakeholders to help raise awareness of the process (see Appendix A).

The harvest strategy Slack group continues to provide an informal communication channel with members. Please contact Finlay Scott at SPC ([finlays@spc.int](mailto:finlays@spc.int)) if you would like to join.

# **3 Challenges**

There are several challenges and barriers to the stakeholder engagement and capacity building that SPC is working to address.

The in-country workshops moved on-line as a result of the Covid-19 related travel restrictions. While on-line workshops have been successful, having facilitators in-country during the workshop

provides a more effective delivery of the training and engagement of the participants. In-county training has started to resume now that travel is beginning to open up.

Challenges to future training workshops not only include the continuation of the current travel restrictions, but also scheduling sufficient time given the busy regional calendar. For example, there have been instances of national training workshops being rescheduled or cancelled at the last minute due to other commitments.

Additionally, most workshops participants do not work on harvest strategy related topics on a regular basis and exposure to harvest strategies can be sporadic. It is recognised that follow-up training and additional support material is also important. To this end, additional training materials have been developed, such as the use of the Moodle and interactive training tools.

## **Acknowledgments**

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## References

- Scott, F., Scott, R., Yao, N., and Hamer, P. (2021). Capacity building and stakeholder engagement activities for WCPFC harvest strategies. WCPFC-SC17-2021/MI-IP-02, 11–19 August 2021.
- Scott, F., Scott, R., Yao, N., Pilling, G., and Hamer, P. (2022a). Mixed-fishery harvest strategy performance indicators. WCPFC-SC18-2021/MI-WP-07, 10–18 August 2022.
- Scott, F., Yao, N., and Scott, R. D. (2022b). Ample: An r package for capacity building on fisheries harvest strategies. *PLOS ONE*, 17(6):1–14.
- SPC (2018). Key decisions for managers and scientists under the harvest strategy approach for WCPO tuna stocks and fisheries. Technical Report WCPFC-SC14-2018/MI-WP-05, Busan, South Korea, 5–13 August 2018.
- SPC and Secretariat, W. (2018). Consultative Draft Terms of Reference for a WCPFC Science-Management Dialogue meeting. Technical Report WCPFC-SC14-2018/MI-WP-06, Busan, South Korea, 5–13 August 2018.
- WCPFC (2022). WCPFC Science-Management Dialogue first meeting. Technical Report WCPFC-SMD01, Electronic meeting, 19 and 22 August 2022.

A Harvest strategy poster

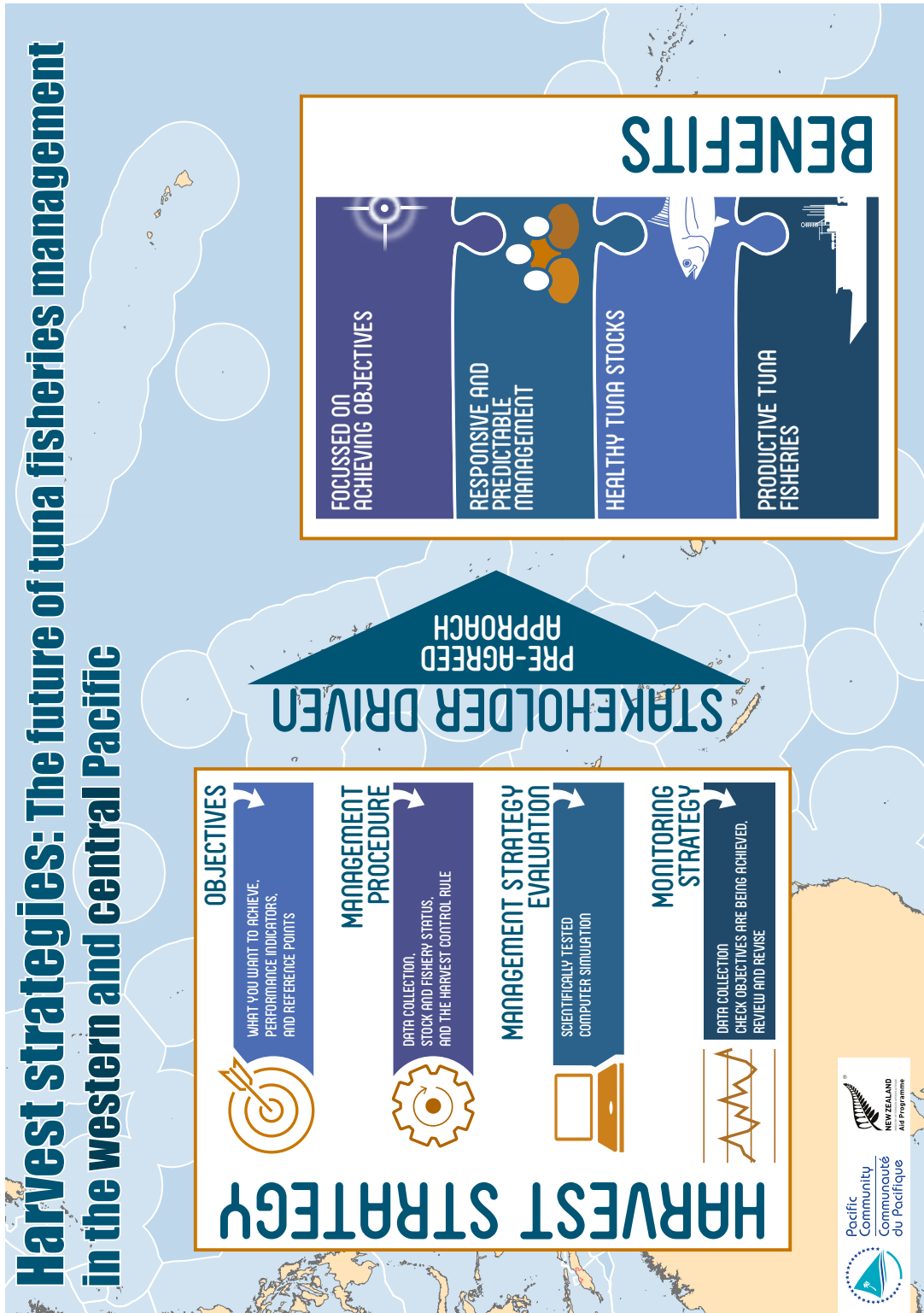


Figure 1: The harvest strategy poster that has been distributed to members.