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Capacity building and stakeholder engagement activities for WCPFC harvest strategies

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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 (??). Additionally, the formation of a Harvest Strategy Advisory Panel (HSAP) was suggested as a process for providing more technical feedback and discussion. Discussions about the SMD and the HSAP are continuing, although interest in the HSAP appears low.

Feedback from the WCPFC members at WCPFC16 and WCPFC17 indicated 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 functioning and consequences among stakeholders.

This report describes the stakeholder engagement and capacity building activities undertaken by SPC, with support from FFA, the challenges that are faced, and proposed future activities.

2 Current stakeholder engagement and capacity building activities

2.1 National and regional workshops

A strong emphasis has been placed on harvest strategy workshops for capacity building. Starting in 2018, in-country national harvest strategy workshops have been conducted with FFA in Kiribati, Solomon Islands, Federated States of Micronesia, Republic of Marshall Islands, Cook Islands, Fiji, Papua New Guinea and Tonga. The workshops are generally held over 2-3 consecutive days and provide a general background to harvest strategies that do not assume any specialist background knowledge. For the first day of each workshop, participants were invited from the wider stakeholder group, including industry representatives, NGOs and staff from non-fishery divisions.

Since the introduction of travel restrictions in 2020, on-line national workshops have been conducted for Tuvalu, Solomon Islands and Palau. The format of the on-line workshops has necessarily been different to the in-country ones, with generally shorter days, but covering similar material.

The workshops have been successful at reaching a large number of members. So far, across 17 workshops, over 260 people have been involved. Given their duration they require a short but intense period of concentration from participants. Improvements are continually being made to workshop content and delivery following feedback from participants.

A regional training workshop was conducted with the PNA (2019). A technical consultation workshop was conducted on-line with Japan in 2020 and another is scheduled for 2021.

2.2 Capacity building tools

Interactive R-Shiny training tools have been developed by SPC that allow users to explore the development and performance of HCRs and MPs. These tools have been widely used in training workshops. Self-guiding tutorials are also available via the tool websites to support learning outside of the workshops.

The tools include:

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

2.3 Decision making tools

A key component of the harvest strategy process is selection of preferred MPs using performance indicators. To help facilitate this process, interactive decision making tools have been developed by SPC. These tools allow stakeholders and managers to explore the results of the skipjack and South Pacific albacore MSE simulations and compare the relative performance of the candidate MPs. They have been used in training workshops to familiarise stakeholders and members with the MP selection process and have also been presented to WCPFC (?). Manuals and cheat-sheets for these tools are available via the tool websites.

These tools are:

- PIMPLE (for skipjack) (<https://ofp-sam.shinyapps.io/pimple/>)
- SPAMPLE (for South Pacific albacore) (<https://ofp-sam.shinyapps.io/spample/>)

Additional tools may be necessary to explore the results of the mixed-fishery MSE simulations.

Conditioning of operating models (OMs) is an important component of the MSE development

process. An interactive tool has been developed to explore the diagnostics of the OMs currently used in the skipjack evaluation process: *Hierophant* (<https://ofp-sam.shinyapps.io/hierophant/>) (?). Similar tools can be developed for the OMs of the other stocks.

2.4 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 is being developed using the SPC’s Moodle site. It is anticipated that this will 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 (still under development) from the main page by using a guest login (<https://spc.learnbook.com.au/login/index.php>).

2.5 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 2020, Jyanti Singh from Fiji became the first PIFP to complete a one year placement on the MSE project at SPC. Jyanti developed many new skills and knowledge in fisheries harvest strategies, MSE and fisheries science in general, as well as skills in R programming and reporting scientific work. She made a tangible contribution to the work and outputs in 2020, including as the lead author of a paper to SC16. A new PIFP has recently been recruited and is expected to join the team in Noumea later in 2021.

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.

2.6 Additional engagement material

A harvest strategy poster will soon be distributed to members and stakeholders to help raise awareness of the process. This will be followed up by short information leaflets that focus on particular harvest strategy components. A series of short information films are also planned that will complement the other engagement material (more information soon).

A harvest strategy Slack group has been set up to provide an informal communication channel with members. There are now over 70 members. Please contact Finlay Scott at SPC (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. Reverting back to in-country training will occur as soon as travel reopens.

Challenges to future training workshops not only include the continuation of the current travel restrictions, but also scheduling sufficient time given the business of the regional calendar.

As mentioned above, the workshops have been successful at reaching a large number of people. Additionally, most workshop 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. We may need alternative approaches to keep the individuals who will be required to participate in the harvest strategy development processes engaged. The SMD would be beneficial in this regard.

The focus of the capacity building and stakeholder engagement activities have changed as the development of the harvest strategies progresses. The current harvest strategy workplan suggests that the management procedure (MP) for WCPO skipjack will be adopted by the end of 2022. Future training activities will 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. FFA's involvement in supporting these activities is expected to increase as the harvest strategy development process continues.

4 Member feedback and dialogue

The focus of future capacity building activities needs to be discussed with WCPFC members and we welcome any comments or suggestions.

In addition, as mentioned above, WCPFC members are required to make a range of informed decisions during the harvest strategy development process. Many of these decisions require a two way dialogue between scientists and members and the development of mechanisms, such as the SMD, to facilitate this are encouraged.

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