

PNA



**NEW CEO
DR SANGAA
CLARK FOR
2021**

**Our tuna
stocks –
sustainable,
profitable
industries**

**COVID 19 –
the PNA
response**

**YEAR BOOK
2020**

**PNA OFFICE
BUILDING**

**COMMEMORATIVE
EDITION**



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Contents

CEO Introduction
6

PNA Office Building –
Our Regional Icon
8

Responding to COVID-19
16

Purse Seine Vessel Day Scheme –
an International Success Story
20

Our Tuna Stocks –
Are They Sustainable?
24

Pacifical –
Geographically-
Unique Wild Tuna
26

Fisheries Information –
A Key to Success!
27

The FIMS back story
28

FIMS Fit for Purpose
29

Chain of Custody Certification
30

Economics in the
Purse Seine Fishery
32

Marine Stewardship Council –
Certified Sustainable
34

Planning for a Strong Future –
The PNA Planning Framework
35

Key Policy Issues For The PNA –
Now And In The Future
36

PNA Office Finance Reforms –
2020 Brought Welcome Change
38

The PNA Observer Agency –
Keeping Them Honest
40

Other Notable Highlights
From 2020
42

Our Dedicated Staff
44



Parties to the Nauru Agreement

- Federated States of Micronesia
- Kiribati
- Republic of the Marshall Islands
- Nauru
- Palau
- Papua New Guinea
- Solomon Islands
- Tuvalu
- Tokelau (observer)

Introduction from the Parties to the Nauru Agreement Ministerial Chair 2020, the Hon Sandy Alfred, Minister of Natural Resources, Commerce and Development, Republic of Marshall Islands

2020 was a year we will never forget. The world changed forever as COVID-19 spread like a wildfire causing terrible suffering and misery. Like most Pacific island countries, here in the Marshall Islands we have managed to avoid the worst of the pandemic and for that I am grateful. But our thoughts and prayers are with the millions who have been less fortunate.

Our PNA business has carried on. People still need tuna, and our industries have continued to operate with all the precautions in place to make it safe to do so. As the Parties, we have continued to meet, without travel, and without contact, by Zoom video conference. This new way of doing business has been a revolution, forced on us by the pandemic. I am proud that we were still able to successfully conclude all our routine business and make progress on our strategic agendas. It is my firm belief that we need to meet face to face before too long, and we need to make a significant effort to make this happen. As Pacific people, we are naturally friendly and cooperative and we our business better when we are able to talk about issues not just around the table, but in the margins, in coffee breaks, over dinner. Relationship building has been the foundation of our long-term success and it is difficult to do this properly through a computer screen.

RMI was looking forward to hosting the PNA Office 10th anniversary celebrations, and the opening of the new PNA Office - but the pandemic prevented this. I promise all the Parties that as soon as travel restrictions are lifted, we will work with the office to plan this celebration.

The annual PNA Ministerial meeting was a great success and I extend my congratulations and appreciation to the staff of the PNA Office, and CEO Mr Ludwig Kumoru, for their combined efforts during the year. The way in which they have seamlessly adapted to the new operating environment, stayed on top of the business plan implementation, managed losses of senior staff and subsequent recruitment, should give us confidence that the work of the Parties, and more recently the work of the Audit and Budget Committee, has placed the office in a good position to manage change and unforeseen developments.

There continue to be many challenges facing both the Parties and the office but I am confident they will be met and conquered. This year, we look forward, as a country, to saying farewell to CEO Kumoru, and welcoming the new CEO Dr Sangaa Clark, a Kiribati national who has built a career in the management of tuna fisheries and for the last decade has led the PNA Office's fisheries policy program. This will be a new era for the PNA and the office and we look forward to working with all Parties towards our continued success.

Thank you, kom̄mooltata, lōkwe kom̄.

Hon Sandy Alfred

Minister of Natural Resources, Commerce and Development, Republic of Marshall Islands.



CEO Introduction

This is the second PNA Office annual report magazine. Producing a magazine like this was asked for by the Parties who wanted something they could have to show other officials and their home governments what it is we all do. The first magazine was a great success with lots of positive feedback. As the years go on, the magazine will appear to repeat itself, but each year, the content of each part of the magazine will be updated to reflect the work done that year, and any new challenges – but the core information about the work we do will remain constant, and will help to keep our countries informed about what we are doing, and our successes.



From left to right: Kaili Kramer-Andrike, Senior Acct; John Kelimana, IT Manager; Loreen Bigler CSM; Ludwig Kumoru CEO; Aketa Tangaa, VDS Manager; Sladen Jieta, Accounts Clerk; Penihulo Lopati, VDS Officer.

I did not expect to be writing this report and the new CEO should really be in the post now. It is only the COVID-19 travel bans that have prevented Dr Clark from taking up the new role. For me, however, this has been a great opportunity to finish some projects I had started and to leave the new CEO with less to do – in terms of tidying up those old projects. There will of course be plenty of new ones to keep everyone busy, and we can never stop improving what we do.

The 2020 Annual Minister’s Meeting was a highlight of all the meetings I have organised during my time in this position. Ministers were clearly impressed with all the changes and improvements, and congratulated the office both during and after the meeting for the way the meeting was conducted and the quality of the papers and discussions. At one time, we were compared favourably with the Pacific Islands Forum Secretariat which is strong praise for a small office like ours. I am particularly grateful to have implemented the sustainable funding strategy that will place the office on a strong footing as we move forward.,

Finally, we have moved into the new office. We came so close before the COVID-19 pandemic hit, but our supplies and the final pieces we needed to complete the new office were delayed. But now we are in and this new office is a magnificent building that we all should be proud of.

In 2020 we recruited three new staff, Kaili Kramer-Andrike our new accountant; Aketa Taanga, our new VDS Manager, and Sladen Jieta, our Accounts Clerk. I want to personally thank all three staff for the way they have worked hard to settle into their new roles, and for the very high quality of their performance. I also want to acknowledge the success of the PNA supported sponsorship program with the recent successful completion of the Masters in Maritime Policy from Wollongong University by Ms. Miorida Yeeting from FSM NORMA.

We have continued to sort out governance issues, and Parties have approved the PNA Governance Framework, the Recruitment Policy, the Dispute Resolution Process, and Rules of Procedure. Good progress has been made with the PNAO Consolidate Regulations.

The review of Pacifical has been discussed a lot, and good progress is being made to give a new direction. The Parties also approved the terms of reference for the review of the PNA observer program to be undertaken in 2021.

The rest of the magazine speaks for itself, and I am pleased to thank all the contributors, and to be able to present this second PNAO yearbook.

“ There will of course be plenty of new ones to keep everyone busy, and we can never stop improving what we do. ”



Ludwig Kumoru
CEO

PNA Office Building – Our Regional Icon

The new four-story Parties to the Nauru Agreement (PNA) office is open for business! The upper floors have magnificent views of Majuro Lagoon and the vibrant maritime and transshipment activities.

On the ground (first) floor are the carpark, power control, storage space, and security/guard rooms. The second floor is the main office, which houses the PNA Office (PNAO) secretariat and the PNA Observer Agency (POA), along with a meeting room providing capacity to hold up to 20 people. The third floor has the main conference room with capacity to seat around 80 people, and houses FIMS Inc. The fourth floor has two apartments, one of which is the CEO's residence. There is also a small entertainment area with a kitchen.

On the rooftop, the building has two water tanks. Water from these tanks gravity-feed the office, and support the fire sprinkler system. The building has a big underground water reservoir, with a capacity of 100,000

litres. The reservoir will store rainwater from the building to be pumped up to the tanks. The building's scenic elevator provides disabled access to all floors and is a feature visible from the outside.

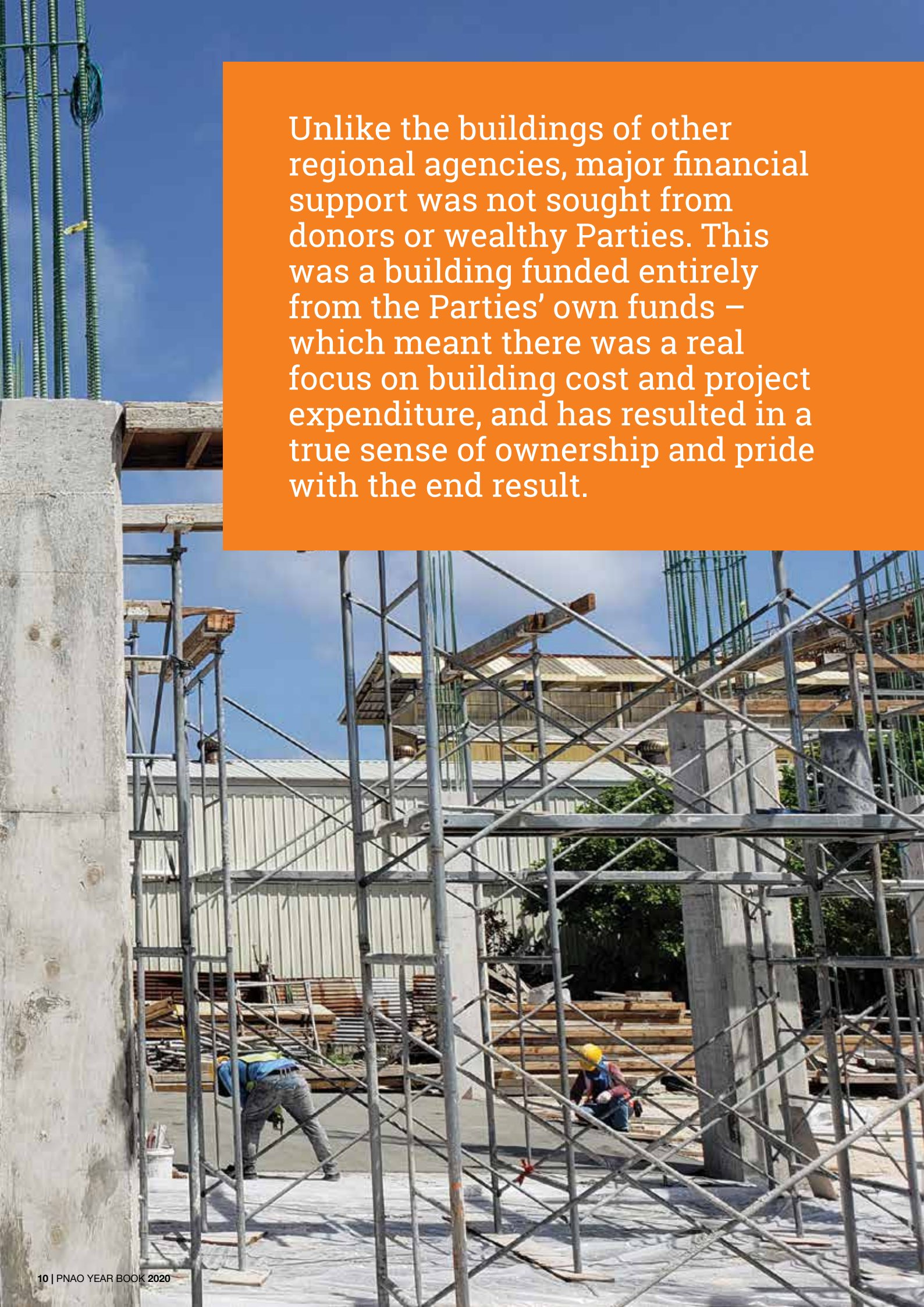
The new PNA building is the most modern in the Marshall Islands, a true icon which stands as a testament to the success of the PNA, the Vessel Day Scheme, and the positive impact of decades of hard work on the Parties' economies. The new office building is symbolic of the unified commitment of the Parties to collaboration and cooperation - for our common good, our common wealth, and for the sustainability of our common tuna resources.



In September 2018 work started to excavate the foundations with site preparation, drainage and groundworks.



Unlike the buildings of other regional agencies, major financial support was not sought from donors or wealthy Parties. This was a building funded entirely from the Parties' own funds – which meant there was a real focus on building cost and project expenditure, and has resulted in a true sense of ownership and pride with the end result.



The Decision to Build

In many ways it is an achievement in itself to reach multi-lateral agreement on a project of this kind.

Unlike the buildings of other regional agencies major financial support was not sought from donors or wealthy Parties, this was a building funded entirely from the Parties' own funds – which meant there was a real focus on building cost and project expenditure, and has resulted in a true sense of ownership and pride with the end result.

Of course, this all started when the 2009 Leaders meeting in Kiribati agreed the Parties to the Nauru Agreement (PNA) would establish a new regional fisheries agency with a small, self-funded office, to be head-quartered in Majuro in the Marshall Islands. This decision followed a growing feeling amongst the Parties to Nauru Agreement (PNA) that the Forum Fisheries Agency (FFA) could not adequately promote their specific concerns and commercial interests. A small group of PNA individuals met in the margins of the 5th Regular Session of the Western and Central Pacific Fisheries Commission (WCPFC) in Busan, Korea in 2008, to consider a proposal that the PNA establish a separate, stand-alone agency.

By early 2010, events had moved quickly, and the agency was formally established in the Marshall Islands. A small office was rented – just enough space initially for three workstations for Transform, Maurice and Anton. Later, Maurice moved to the air conditioner machinery room, Loreen was recruited, Anton retired, and staff numbers increased to five with the arrival of Patricia and Herman. A magnificent board table and all office furnishings were donated by PNG that completely filled the office! It wasn't until 2018 that a two-desk annex was added to the office to create work space for new positions.

The parties however had their sights set on their own stand-alone building as the PNA Office headquarters. The brief was that the building be “iconic, modern, symbolic, and forward-looking”. The new building would house the PNAO and the other businesses the PNA would establish.

Discussions about constructing a new stand-alone office building were high on the agenda at the 2015 PNA Ministers' meeting in FSM where the Marshall Islands presented a concept for a new PNA building to house the PNAO, the PNA Observer Agency, and FIMS Inc. The original idea was to co-invest with the Majuro Stevedore Company and take a single floor in a new building. Parties were not attracted to that idea choosing to have a separate office. A decision was then made to acquire land, and RMI organised to acquire the land where the office was eventually to be built. The land had an existing two storey restaurant and two options were considered. The first was to refurbish the restaurant building; the second to knock it down and build a new office. Parties preferred to build new office.

Several building design options were considered but whilst that was going on the Marshall Islands Marine Resources Authority were completing their own new office. At some point, it was realised that using the same basic design could save both time and money. For the same cost, and to fast track the build, Parties decided to adopt the basic MIMRA design - although eventually a fourth floor was added to the PNA building.

This idea got traction and at the 2017 PNA Annual Meeting in Majuro, officials agreed to use surplus office funds to finance the new building. Later that year, the Marshall Islands Marine Resources Authority (MIMRA) on behalf of the PNA, ran the tender for the design and construction of the building. The contract was awarded to a Marshall Islands construction company, Pacific International Incorporated (PII).

The ground-breaking ceremony was held in February 2018 during the 2nd PNA Leaders meeting held in Majuro. Site preparation and ground works started the following September.

The Project Background

The office construction project was tendered by the (MIMRA) on behalf of the PNA. The original scope of works of the Design and Build Project was for a 3 storey office building with a parking area on the ground level and 2 upper storey levels as office spaces.

The project to design and build the PNA building was awarded to Pacific International Inc. (PII). After the execution of the contract agreement, several changes to the contract were initiated, including adding a 4th floor residential space. Adding this space required the building to have an elevator. A fire protection system and elevated water storage were also added.

As the project neared completion, an independent review was commissioned by Palau Minister for Natural Resources, Environment and Tourism, Umiich Sengebau in his capacity as Chairman of the PNA. The Bureau of Public Works (BPW) from Palau was engaged and on January 3, 2020, their team arrived in Majuro to begin an assessment and site inspection.

The report made positive recommendations to support the finalisation of the project. Minister Sengebau stated to PNA Ministers, "I am pleased to report to you that having done our due diligence we are most satisfied that the contract is fully in order".

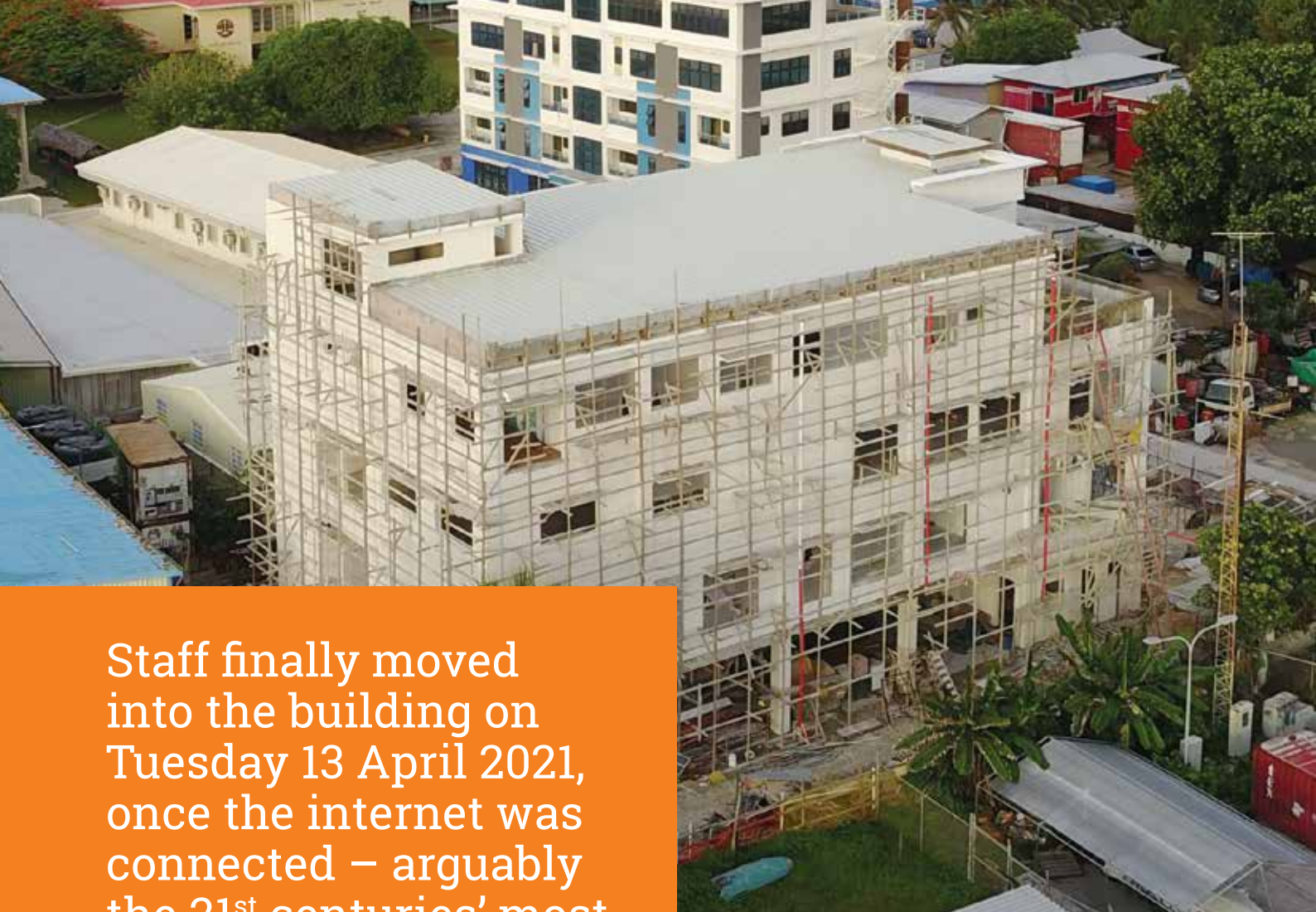




“ I am pleased to report to you that having done our due diligence we are most satisfied that the contract is fully in order. ”

Minister Sengebau





Staff finally moved into the building on Tuesday 13 April 2021, once the internet was connected – arguably the 21st centuries' most important utility!



Under Construction

Ground breaking for the new office took place in February 2018 when PNA Leaders came to their meeting in Majuro. Once ground breaking was complete the old two storey restaurant was knocked down, and in September 2018 work started to excavate the foundations with site preparation, drainage and groundworks. In November 2018 the foundations and the underground water tank were underway.

By December 2018, the building started to rise from the ground with the first floor columns poured and in January, work had already started on the second floor. In February, the third floor beams were in and it was starting to look like a real office.

The next 15 months was a frenzy of activity as walls, windows, doors, tiles, and building signs were installed when COVID-19 hit and when really there were only minor works remaining. This led to delays on arrival of some finishing materials, but with all face-to-face meetings cancelled and the RMI governments plans for an grand opening having to be deferred, in some ways, the pressure was off.

Staff finally moved into the building on Tuesday 13 April 2021, once the internet was connected – arguably the 21st centuries' most important utility!

Those Involved

This has been a long road and many people have been involved in the decisions, and the construction. The PNA extends its thanks and appreciation to all those who have been involved since the 2008 meeting in Busan, Korea.

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Responding to COVID-19

This information in this article is based on the report presented to the PNA40 annual meeting. Statistics are changing constantly as the pandemic runs its course.

The emergence of the COVID-19 pandemic has posed significant challenges for PNA countries. As of 26 February 2021, there were more than 114 million cases of COVID-19 reported globally, resulting in more than 2.5 million deaths. Up to date statistics are at <https://www.worldometers.info/coronavirus/>

Restrictions to control the spread of the virus have resulted in massive economic disruption to the Parties' economies.

The Parties and the PNA Office have implemented COVID-19 mitigation measures to mitigate impacts on the purse seine fishery. Reports suggest that both the purse seine fishery and related island-based processing sectors have fared well despite the pandemic and COVID-19 restrictions.

Other domestic fisheries important to PNA economies such as the long line fishery, artisanal exports, and tourist based local markets have been significantly impacted collapsed due to market restrictions depressing demand and restricting supply chains. The closure of most air traffic routes has resulted in that component of the supply chain for fresh fish collapsing.

The Parties and the PNAO have taken significant steps to manage the impacts of COVID-19 and this report sets out some of the work done to date, as well as some future considerations.



Work to date

PNAO and Parties have either led, or participated in, a range of initiatives designed to minimize the impact of COVID-19 disruptions on the supply chain. These include:

- **Temporary observer suspension** – in late March 2020, following increasing suspension of regional air travel, port closures and difficulties in purse seine vessels sourcing observers, Parties agreed to temporarily suspend the 100 percent observer coverage requirement. While this has short term impacts on data collection and compliance monitoring, the suspension served to avoid the larger economic impacts of vessels tying up because they couldn't source an observer. The observer suspension was later applied to high seas longline carrier transshipment program. The WCPFC recently extended the suspension to 15 May 2021. It is estimated that the Parties have seen over \$5 million loss in incomes and resultant expenditure in their economies.
- **COVID-19 Impacts Study** – after addressing the observer challenges, PNAO commissioned a study to examine broader COVID-19-related impacts on the supply chain and implications for Parties. The study examined changes in fishery and market dynamics, risks to the broader supply chain and both short-term and long-term issues for Parties' consideration. Amongst other things, the study outlined possible actions on a range of 'logistics' constraints including transshipment and crew exchange, as well as cooperation around medical risk assessment and operational protocols.
- **COVID-19 Dashboard** – following on from the COVID-19 Impacts Study, the PNAO commissioned the development of a 'COVID-19 Dashboard' to monitor key metrics in the purse seine fishery such as effort, catch, CPUE, transshipment volumes, and fish price on a monthly basis. This aims to detect early trends and to position Parties to respond in real time.
- **COVID-19 Protocols for the Fishing Sector** – PNAO played a leading role in the development of operational health and safety protocols as guidelines for fisheries authorities and industry. The protocols are activity based and cover all operational activities including transshipping, bunkering, boarding, and disembarking vessels, and managing COVID-19 cases on board. These protocols were adopted by members of the Forum Fisheries Agency (FFA) as regional guidelines.
- **FIMS Monitoring Apps** – In association with the development of the COVID-19 Protocols, enhancements have been made to the Fisheries Information Management System (FIMS) to assist in monitoring COVID-19 impacts. Key features include providing for:
 - E-reporting crew lists.
 - Temperature recording (including alerts to PNA and industry if temperatures are outside expected ranges).
 - A module showing automated vessel 'proximity alerts' by date range, distance between polls, and by vessel to help monitor 14-day no contact requirements.
 - A Crew App to document crew vaccinations on board.

Current status

The current economic and operational status has varied between fisheries and sectors

Purse seine fishery

At least partially as a result of the measures taken, the PNA purse seine fishery and supply chain remains less affected by COVID-19-related disruptions than in other ocean basins (many of which have suffered vessel tie-ups and processing downturns due to outbreaks on vessels and in processing plants). Based on the February 2021 data:

- Effort has remained high in 2020 (including record levels for some months), with no obvious COVID-19-related downturn.
- Both catch and catch per unit of effort (CPUE) have generally been lower than the high levels seen in 2019. This is more likely related to natural fishery dynamics which has shifted effort west, rather than COVID-19 impact.
- Transshipment volumes have recovered from a low in February 2020 (volumes were on their way down pre-COVID-19) with the available evidence indicating PNA measures to allow transshipping in territorial seas were successful in preventing a potential transshipment supply chain bottleneck.
- Skipjack tuna prices appear to be following the same annual cyclical pattern seen in recent years. Up to April 2020 there was no substantial increase in price. The market saw a 40 percent surge of in retail canned tuna demand in the early stages of the pandemic, balanced by a collapse in foodservice and institutional catering (e.g. school canteens). However, since April 2020 Bangkok prices have increased, typically up by \$300 per metric tonne (mt), compared with the same in 2019.
- Prices in Manta, Ecuador, were typically up by \$400/mt above Bangkok prices each month, due to COVID-19 impacted Eastern Pacific Ocean fleets. PNA fish has hence been traded into Manta.
- Fuel price crashed at the start of the pandemic, but have since begun to rise. Prices for 2020 averaged around 60 percent of 2019. However higher early 2021 oil prices are likely to see an increase.

- Thailand cannery production has remained relatively unaffected by COVID-19, in contrast to other processing centres which have suffered stoppages and downturns e.g. Ecuador, Philippines, Seychelles, Ghana.

The WCPO supply chain is less exposed to COVID-19 disruptions in a single processing centre given the higher use of carriers, which can be diverted to alternative facilities if required.

Processing facilities, carrier and bunker vessels have adopted 'in house' measures to minimize risks such as health checks, social distancing, sanitation policies, and discontinuing crew exchange for fishing vessels. These have so far provided for relatively normal operations. However, industry has had to look to carriers to provide provisions, supplies and some crew changes as port access and flight connections are closed.

Estimates indicate that, because of higher effort and lower fuel costs, annual vessel profits are higher in 2020.

Despite the comparatively 'normal' operation of the fishery, some issues remain a challenge for industry such as crew exchange, and access to specialist technicians.

Longline fishery

The initial impacts on the longline fishery were severe, particularly on vessels targeting high value sashimi species. COVID-19-related restrictions in key markets including Japan and the US meant that demand and price for higher-value species including bigeye and yellowfin were heavily impacted globally with restaurants typically closed. 'Fresh' tuna longline vessels were hit particularly hard by the collapse of regional air services and the inability to get product to market.

However, prices for fresh sashimi into Japan/US appear to have largely recovered, although air freight remains a problem. Volumes in some markets are reported down by 40 percent. Lack of air flight is also frustrating imports overseas where original documents are required for customs clearance.



Prices for canning grade albacore were high at the start of the pandemic (~US\$3700). Prices declined (~\$US3,100 in July 2020) but then started to recover. Anecdotal reports indicate that some longline vessels with freezer capacity have shifted towards targeting albacore, initially increasing volume with resultant price drops. Overall albacore effort was up, with CPUE down significantly [typically -33 percent]. Japan recorded a 60 percent increase in albacore exports for 2020.

It is highly unlikely that longline vessels are operating profitably with considerable pressure reportedly being placed on Parties to reduce access fees. It is reported 120 vessels that normally fished PNA waters have either tied up or changed the targeted fishery such as to albacore.

Future issues

While the future course of the pandemic is uncertain, there are a range of matters that will require awareness and attention:

- **COVID-19 vaccinations** - The regionally adopted COVID-19 protocols are currently under review and need updating to cover the impacts of now available testing and vaccinations. Priority Vaccination of crews, observers and those in contact with vessels is potentially a safer way to accelerate return to normal business in ports and break any potential transmissions between island communities by sea.
- **COVID-19 Testing** - rapid antigen and serology testing is not reliable unless the crew has symptoms for 5-7 days, this seriously limits its safe use as a primary check on COVID-19 free status for vessels. The more sophisticated RT-PCR tests are more expensive and slower.
- **Timing of resuming observer program** – the 100 percent coverage requirement was temporarily suspended on 27 March 2020. The wind down process was lengthy due to difficulties in returning observers to locked down Parties. The suspension of observer coverage impacts critical data collection and compliance monitoring functions. WCPFC has extended the suspension until 15 May 2021. The priority must now be to progressively recommence observer coverage.
- **Crew exchange/access to technical specialists** – an ongoing issue for industry has been the inability to exchange crew and fly in specialist technicians to maintain vessels where necessary. Limited anecdotal information from industry suggests many have managed the exchange of deck crew through carriers, although this is not practical for senior officers. For that purpose, some vessels have returned to their home port to exchange senior crew or address break downs. The challenge is likely to remain until there is some relaxation of regional air travel restrictions.
- **COVID-19 outbreak at sea** - Given the experiences in other fisheries this is a potential issue for the PNA. The COVID-19 Protocols provide guidance to Parties and vessel operators on what to do in the event of an outbreak, but contingencies for vessels seeking medical assistance from Parties need to be worked through.
- **Validation of 14 day 'no-contact' requirements** – 14 day 'no contact' requirements for vessels wishing to enter port are a central part of most Parties' COVID-19 management regimes. Effective enforcement of this provision requires close monitoring of vessel movements and interactions. Enhancements have been made to FIMS to establish 'proximity alerts' which allow Parties to determine whether vessels have come into close proximity with other vessels on VMS, and for how long. At present, the system is using purse seine, carrier and tanker data from PNA VMS and with earlier support of NFA. Parties are encouraged to familiarize themselves with the FIMS 'proximity alert' facility and use it where appropriate to validate port entry paperwork provided by industry, and contact tracing.
- **Geopolitics** – The PNA response, in particular for the purse seine sector, has so far been a success story and the Parties' efforts are encouraged to remain strong to preserve this situation against external threats.

Purse Seine Vessel Day Scheme – an International Success Story

The Parties to the Nauru Agreement (PNA) purse seine Vessel Day Scheme (VDS) is remarkable for many reasons. Outstanding amongst these are:

- The Western and Central Pacific Ocean (WCPO) tuna fishery it mostly controls, is the largest and most valuable in the world.
- It leads the management of the WCPO tuna fisheries, the only sustainably-harvested tropical tuna fisheries in the world.
- It generates very high levels of revenue for Pacific Island countries.

The key to the VDS is the annual process of agreeing a limit on the number of days that can be fished by purse seine vessels across the combined Exclusive Economic Zones (EEZs) of the Parties. The annual process involves:

- Setting the total allowable effort in fishing days.
- The distribution of those fishing days between the Parties as Party Allowable Effort.
- The allocation of those fishing days to fishing fleets and vessels.

The outcome of the VDS is that catches are controlled at sustainable levels, and the Parties are getting strong financial returns from fisheries access revenue and other licensing arrangements. In 2020 both the longline and purse-seine fishery fishing effort were successfully managed within agreed levels.

During 2020, of the 45,033 day TAE, 6,681 days were fished under the FSM Arrangement (FSMA); 1,760 days were fished under sub regional pooling arrangements (SRPA); and 1,313 were fished under the US multilateral-treaty (UST).

The PNA Office provide regular and ongoing support to Parties' VDS officers. The administration of the VDS is a true multilateral arrangement that would not be possible without good communication and collaboration.

Neither the total allowable effort for the longline nor the purse-seine fishery were fully utilized at the end of the 2020 management year. Unfished days are not carried forward to future years.

The longline VDS, whilst still in its early years of operation, has strong potential to support sustainable longline fishing, and increase economic returns for participating countries.

In 2020, the PNAO with FIMS Inc conducted two workshops to support the fishing industry, plus each country's VDS and data officers.

The PNAO staff involved in the VDS administration appreciate how the VDS strengthens the Parties' collective efforts to manage the fishery, and also the continuous commitment of the Parties to effectively implement the VDS over the last decade.

The VDS has empowered the Parties to leverage fishing interests to secure greater benefits for the Parties, whilst providing the framework for the Parties to effectively manage their respective PAEs. This has ensured collective fishing effort in the region remains within sustainable levels.

The foundation for the VDS is the 1982 Nauru Agreement, a binding agreement under international law between eight Pacific island countries, the Federated States of Micronesia (FSM), Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu. This agreement has the goals of co-ordination and harmonization of the management of fisheries, and co-ordination of approaches to fishing for common stocks.

The subsequent 1992 Palau Arrangement falls under the Nauru Agreement. The Palau Arrangement Parties are the PNA, plus Tokelau. The VDS was approved in 2006 as a fisheries management scheme under the Palau Arrangement.



Independent VDS Review

An independent review of the VDS was undertaken in 2014 by Ragnar Arnason, Professor in Economics at the University of Iceland. The review was considered by the Parties in 2016. The following text is a summary of Professor Arnason's introduction to that review:

The WCPO tuna fishery resources are spread over a huge ocean area and are found in significant volume in the EEZs (Exclusive Economic Zones) of more than 12 independent nations as well as the high seas between them. They are exploited by both local and distant water fishing nations using a variety of fishing methods. These attributes imply it is also one of the world's most difficult fisheries to manage effectively.

The PNA purse seine Vessel Day Scheme (VDS) represents an attempt by eight Pacific States, whose EEZs cover a large fraction of the distribution area of the WCPO tuna resources, to install a management system for this fishery capable of conserving the resource and securing the flow of net economic benefits from the fishery on a sustainable basis. Given the complexity of the fishery and the number of nations involved, this may be the single most ambitious attempt of this kind seen in the world so far.

There is overwhelming evidence that the VDS has been highly successful:

- *Under the VDS, two of the largest tuna stocks; skipjack and yellowfin, have been maintained in a very healthy state.*
- *The economic success of the VDS has been even more impressive. Since the introduction of the VDS, the fishing fee revenues collected by the VDS-partners have increased dramatically.*

The potent fisheries management component of the VDS system is not the limitation on vessel days per se, but the fishing fee per vessel day. So, contrary to arguments sometimes made by representatives of the distant water fishing fleets, the fishing fee is the crucial part of the VDS. The higher this fee can be pushed, while the allowable fishing days are still being used, the more economically efficient will the tuna fishery be, and the greater its net contribution to the world economy.

Administering the purse seine VDS - a critical task for the PNAO

The new VDS Manager is Ms. Aketa Taanga from Kiribati. Ms. Taanga joined the PNA Office (PNAO) in September, 2020 with the assistance of the RMI Government in allowing her to be part of a repatriation flight from Kiribati to RMI. Ms. Taanga previously led the management of the VDS in Kiribati in her former role as the Director of Licensing Compliance Division for the Ministry of Fisheries and Marine Resources Development. She worked for Kiribati in offshore licensing and compliance for more than 10 years and has been involved in regional meetings as well as decision making for the Palau Arrangement, the Parties to the Nauru Agreement, and the FSMA, to help strengthen and improve the VDS.



Ms. Aketa Taanga
VDS Manager

**Administering the purse seine VDS -
a critical task for the PNAO - continued...**

The VDS Manager together with the VDS Officer, Penihulo Lopati, administer the Vessel Day Schemes, and assist Parties to with successful implementation of in-country VDS systems.

The administration of the VDS is the core business of the PNA Office. If there is one thing the PNA Office must get right it is the effective administration of the VDS. And this is a challenging task, perhaps best explained through the annual process timeline. The fishing year is a calendar year. But the VDS administration process begins in the second quarter (April to June) of the prior year; and finishes at the end of March of the year after the fishing year. So it's a process spanning 24 months for each calendar fishing year; overlapping both the previous year, and following calendar years.

Total Allowable Effort

The first step for every fishing year is to support the Parties to set the Total Allowable Effort (TAE). This is the total number of days that will be fished by the nine Palau Arrangement Parties for the following calendar year. This is usually resolved in the second quarter of the year before the fishing year. For 2020, the TAE for the purse seine fishery was set at 45,033 fishing days.

Party Allowable Effort

The next steps involve the allocation of the TAE into Party Allowable Effort (PAE). This is done using an agreed allocation process.

Maximising benefits

The Parties then begin the steps to transform their PAE to fishing opportunities through negotiations for fishing arrangements that aim to maximize their benefits. Before the beginning of the 2020 fishing year, all fishing days had been reported as sold or committed through either domestic, foreign, or multilateral arrangements. This included days that were committed under the multilateral treaty with the United States (UST), the FSM Arrangement (FSMA), and other sub-regional pooling arrangements (SRPA).



The VDS Register

In the lead up to the fishing year, all longline and purse-seine vessels have to be registered on the PNA VDS register. This starts as early as October each year, and is a mandatory requirement for all vessels that plan to fish under the VDS in the following fishing year. Historically, the number of vessels registered on PNA Vessel register has been as high as 612 vessels (353 for Longline and 259 for Purse Seine vessels), but in 2020 the number of vessels registered was 552 vessels (308 longline and 258 for purse-seine vessels). The year 2020 was a challenging year for the longline fishery as the international market for longline product was heavily impacted by COVID 19 contributing to a significant drop in the number of longline vessels registered.

As part of the registration processes, the PNAO ensures the vessel reports to the vessel monitoring system (VMS) directly to the fisheries information management system (FIMS) to enable accurate accounting of days under the VDS. Throughout the fishing year the VDS team is also responsible for updating vessel information during the fishing period for example due to changes in ownership, management, flag, or vessel name.

Collaboration and trading

The process of assignment of days to licensed vessels is crucial for effective implementation of Parties' obligations to allocate and monitor their PAEs. This requires good communication between Parties, their fishing partners, and the administrator, to ensure days and vessels are correctly paired.

During the fishing year, the Parties may trade days in and out of their PAEs in accordance with the VDS rules. For example, a Party is not allowed to transfer more than 100% of its PAE - including days already used at the time the request is made.

The administrator monitors trading by the Parties as well as all days fished by every vessel. Records of balances and trades are maintained to ensure the integrity of the scheme. Detailed reports are presented to the Parties.

During 2020, of the 45,033 day TAE, 6,681 days were fished under the FSM Arrangement (FSMA); 1,760 days were fished under sub regional pooling arrangements (SRPA); and 1,313 were fished under the US multilateral-treaty (UST).

Non-fishing days

Vessel owners or operators may submit non-fishing day (NFD). Vessel days in Party waters that are claimed as non-fishing days, are validated by each Party to enable balance adjustments. This is normally 10 to 15 percent of all the days that vessels spend in Party waters.

Claims for non-fishing days received by 15th of each month must be validated by the relevant Party by end of the next month. All outstanding unprocessed NFDs for the previous year must be finalized and validated by the end of the following February.

FIMS

The office oversees the administration, maintenance and development of the Fisheries Information Management System (FIMS) to allow the Parties real-time access to their VDS data. In addition, the office is also responsible for billing and collection of FSMA payments for allocated days, and distribution of FSMA and SRPA revenue shares to the respective Parties.

VDS in the news

The VDS is frequently in the news, in particular it is often recognised for the contribution it makes to the economies of the Parties. Some recent examples are given below:

- i. "How Eight Pacific States Are Saving the World's Tuna"¹
- ii. "For the PNA, the Vessel Day Scheme was key to maintaining healthy stocks in the Pacific's purse seine fishery and had also helped PNA nations reap huge economic benefits."²
- iii. "...fiscal performance has improved significantly in recent years. Substantial increases in fishing license fees resulting from the introduction of the Vessel Day Scheme (a regional agreement that establishes the minimum price of a vessel day and limits the total number of vessel days sold) ..."³
- iv. "The Vessel Day Scheme (a regional agreement that establishes the minimum price for a purse-seine vessel day and limits the fishing days in PNA waters) and favorable

¹ <https://www.undercurrentnews.com/2019/03/06/pna-to-look-at-increasing-value-of-vessel-day-scheme-extending-it-to-longliners/>

² <http://www.tunapacific.org/tag/vessel-day-scheme/>

³ <http://pubdocs.worldbank.org/en/681491563917604796/mpo-npi.pdf>

Our Tuna Stocks – Are They Sustainable?



Background

The four key tuna stocks fished for in the western and central Pacific – skipjack tuna, bigeye tuna, South Pacific albacore, and yellowfin tuna – are in a healthy state.

The four key tuna stocks fished for in the western and central Pacific – skipjack tuna, bigeye tuna, South Pacific albacore, and yellowfin tuna – are in a healthy state.

That was the most recent advice given to the Parties to the Nauru Agreement (PNA) by their scientific advisers from the Pacific Community (SPC) who provide scientific and technical support to Pacific Island countries in the management and sustainable development of their tuna resources. SPC is also the contracted science services provider for the Western and Central Pacific Fisheries Commission (WCPFC).

The SPC advice regarding the healthy state of the tuna fishery is consistent with the findings of the WCPFC Scientific Committee, which follows a review of scientific assessments of the status of tuna stocks.

In more detail, the findings are that all four stocks are not overfished nor is overfishing taking place; as a result the current spawning stock is estimated to be large enough to sustain present fishing levels into the future.

In other words, **the current annual catch rate of all four stocks is sustainable.**

The SPC advice was welcomed by the members of the PNA and other Pacific Island countries, whose sustainable development is deeply dependent on securing benefits from the region's tuna fisheries.

Annual catches of the four tuna species (bigeye, skipjack, South Pacific albacore, and yellowfin) in PNA waters have averaged around 1.5 million tonnes

in recent years. This is around 55% of the total catch of these tuna in the broader Western and Central Pacific Ocean (WCPO). PNA vessels also take another 150,000 tonnes in the high seas,

These stocks are also globally important, contributing more than 30% of world tuna supplies, making a crucial contribution to global food security.

An outstanding feature of the recent SPC advice, is that the WCPO is the only regional ocean area where all stocks are healthy, and the tuna fisheries are sustainable. This is illustrated in the first figure below showing the stock status and catch in each regional ocean area. The WCPO is the only area where all four major stocks are “in the green”.

With most of the WCPO catch taken in PNA waters, it is the effectiveness of the fishery management and conservation measures implemented by the PNA and other Pacific Island countries which has supported the healthy state of regional fish stocks. The PNA Vessel Day Schemes (VDS) for both purse seine and longline fishing, are particularly important in securing this positive tuna stock status: most WCPO tuna catches occur under the control of the VDS.

As the second figure below shows, the status of all four stocks was declining, in terms of their depletion ratios, until measures were adopted over the last decade. Since then, the stock declines have generally flattened off and been maintained at healthy levels, safely above the agreed redline Limit Reference Points.

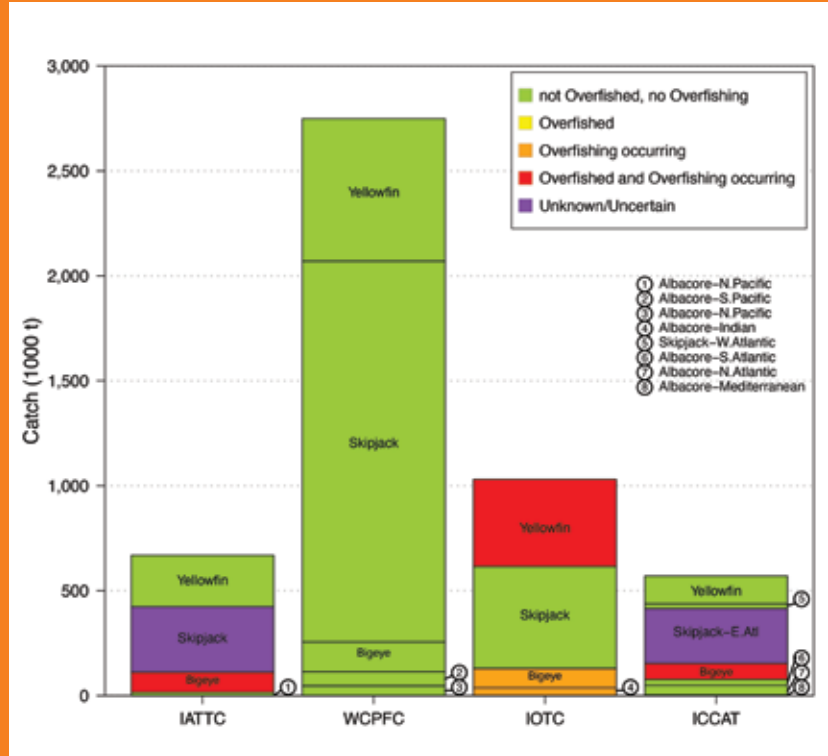


Looking Ahead

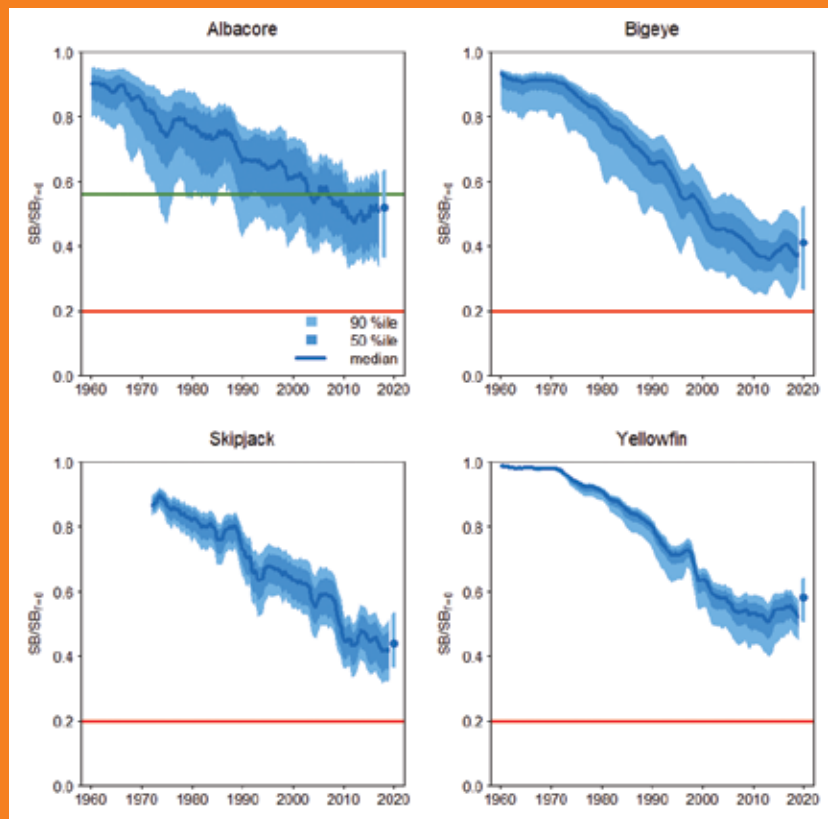
While the uniquely healthy status of tuna stocks in this region is an undeniably positive outcome, we cannot be complacent. There is room for further improvement in the way the PNA and other Pacific Island countries manage tuna fishing in their waters. There are gaps and weaknesses in the fishery management and conservation measures in place, particularly on the high seas. Unfortunately, some distant water fishing nations which use these waters, are not supportive of the PNA's efforts to ensure effective high seas management arrangements. Indeed, some of their vessels are involved in systematic overfishing of their limits in the high seas in contravention of WCPFC conservation and management measures.

In the longer-term, climate change issues are expected to generate a whole new set of challenges to the management of our tuna stocks. Managing fishing cautiously and keeping the stocks healthy, is a critically important step towards meeting those challenges.

Stock status and Catch by Ocean



Depletion trajectories of the four target tunas



Pacifical – Geographically-Unique Wild Tuna



Pacifical is a global tuna marketing company set up by the eight Parties to the Nauru Agreement (PNA) countries, in 2011. The aim was to promote the PNA, and to actively trade Marine Stewardship Council (MSC)-certified tuna catches from PNA nations.

Pacifical is a partnership between the eight Parties + Tokelau, and Sustunabe BV, a Dutch company which had pioneered the marketing and development of free school caught tuna.

The Pacifical co-brand is a **Geographical Indication**¹, a mandatory mark on every certified product package which says to consumers that this is quality, sustainable and responsibly sourced tuna from the pristine tropical waters of the PNA region. The most famous Geographical Indication (GI) is for the sparkling wine called 'Champagne' from the Champagne region of France. By law, no other sparkling wine can be called Champagne. Other examples are Cognac, Scotch, Havana, Tequila, and Darjeeling.

Pacifical represents the largest ocean area in the world producing verified sustainably-sourced tuna. This is supported by a catch traceability scheme that uses a **block chain**² database. Data is gathered from the moment of catch, until delivery of the end-product to the consumer. This level of transparency is of increasing interest to consumers, promotes their engagement, adds to the value of the product, and ensures that all sustainability claims are genuine and verifiable. Every year, there are more than 230 million views of the Pacifical GI by consumers globally on opening their tuna product.

Every retail package of Pacifical tuna has a can code on it, which allows the consumer to trace the history of their fish (when and where it was caught, on what boat, and where it was processed) on the Pacifical website.

Pacifical was the first large scale block-chain initiative in the forty-two billion dollar world-wide tuna industry. In 2020, more than 165 million consumer units with the Pacifical GI were sold in forty countries around the world generating over \$120 million dollars of trade.

During 2020 a independent review of Pacifical was conducted. A conclusion of the reviewer was that the program has been a huge success. However, the review recommended that it must be restructured in 2021 to remain in its leadership role in the trade.



¹ A 'geographical indication', or 'GI' identifies a good as originating in a specific region where a particular quality, reputation or other characteristic of the good is essentially attributable to that geographic origin <https://www.ipaustralia.gov.au/trade-marks/understanding-trade-marks/types-trade-marks/certification-trade-mark/geographical>

² Block chain is a distributed database that exists on multiple computers at the same time. It is constantly growing as new sets of recordings, or 'blocks', are added to it. Each block contains a timestamp and a link to the previous block, so they form an incorruptible chain that cannot be interfered with. This is how crypto-currencies like Bitcoin are protected.

Fisheries Information – A Key to Success!



The PNA controls the world’s largest and most sustainable tuna purse seine fishery, managed under the Vessel Day Scheme (VDS), which generates revenue for the Parties of around US\$500 million each year. A key element of the VDS success story has been the adoption and implementation of a Fisheries Information Management System (FIMS) by the PNA Office and PNA members.

FIMS is unrivalled globally in what it can do, and for its ease of use. Designed by users for users, FIMS has evolved to collect, store, display and analyse the full scope of fishery information – and with features that give it a unique competitive advantage over other information management systems.

In June 2019, the PNA Ministers agreed to acquire iFIMS Ltd, the company that owned the FIMS and iFIMS software. This decision was based on FIMS being a strategic asset that underpins the management of the purse seine fishery.

The acquisition was finalised in late 2019, and was supported by independent due diligence, and extensive work with the company to reach agreement on both the structure of the transaction, and a seamless ownership transition into the new company, **Fisheries Information Management System Incorporated** (FIMS Inc.)

FIMS Inc. is owned by the eight PNA countries, and Tokelau. The company commenced trading on 1 January 2020. Ministers have appointed a company board from each of the nine. A smaller, skills- based board is proposed in future. The company has retained all the associated management, sub-contractor, and developer capacity; along with all support systems and processes to ensure continuity and growth of the FIMS intellectual property.

FIMS Inc. is a domestic company based in Majuro with management reporting to the FIMS Inc. board. As well as providing services to the PNA Office and Parties, and growing the business, the company has a range of strategic goals and objectives. These include increasing the percentage of people involved from shareholder nationalities in both management and technical roles, as well as ensuring all FIMS clients have both a super-user, and a qualified trainer on location for each module, over the next three years.

The PNA and FIMS Inc. are committed to and remain focussed on the mission “FIMS Fit for Purpose”; and continuing to deliver world-class, value-for-money services to clients.



Since the establishment of FIMS Inc. the company provides a continued and enhanced service to its clients. A range of new modules have been developed, and several existing modules have been updated, to ensure FIMS remains “Fit for Purpose” in keeping with client requirements and current technologies.

These new and existing FIMS modules allow for enhanced MCS capabilities so Parties are confident in ensuring compliance with their fisheries management principles.

The new developments in 2020 include :

- An Alert module which allows Party users to set a wide range of alerts to monitor vessels, catch, FAD, Observers and eForms.
- Vessel Proximity module was created to allow Parties to monitor interactions between vessels ensuring vessel activities are complying with not only fisheries purposes but also for the control of COVID-19 e.g. 14 days no contact.
- An Industry COVID-19 app has also been developed in FIMS which allows Industry users and Party members to monitor crew temperatures and potential COVID-19 outbreaks on board vessels.
- To ensure information was available and accessible for all users, a Regional Compliance module was developed along with a Document Library to allow regional specific information to be stored and accessed by all users in the one place in FIMS.
- A wider range of Scientific Reports are now available in FIMS to better monitor catch, by catch and SSI as well as more detailed Economic information for comparison purposes.

To keep pace with current technological advancements the FIMS Inc. Board resolved to develop an Electronic Monitoring (EM) capacity in FIMS. To achieve this, a consultancy report was provided detailing information on the latest technologies available along with the most appropriate way to achieve this module. An EM Project Officer is currently gathering information on Parties requirements to continue with establishing a fully operational FIMS EM module for the future.

FIMS Inc. continues to seek new clients to grow and support the business along with ensuring existing clients needs are met for the continued success of FIMS into the future.

The FIMS back story

As everyone in fisheries management knows, it's all about data, data, and more and better data. Without good data, we are literally trying to steer a course in the fog, without a compass.

But designing the right system to collect, store, and analyse fisheries data, has always been challenging. History shows that around the world, more new fisheries information systems have failed to live up to expectations, than have succeeded.

After a few false starts of their own, Papua New Guinea's (PNG) National Fisheries Authority (NFA) partnered with Quick Access Computing (QAC) to design and develop a new fisheries data platform. In 2007, the first version of the National Fisheries Authority Fisheries Information Management System (NFA FIMS) came off the production line.

The system was built with flexibility and ease of use in mind. As time went by, more and more modules were added, all Cloud-based and fully accessible through a web browser. By 2012, the system was well proven and already getting broad recognition for its superior performance and the flexibility of the system design. Papua New Guinea supported FIMS use by the Parties to the Nauru Agreement (PNA) Office, and by PNA member countries for regional fleets. A new collaboration emerged between NFA, PNAO and QAC, leading to the FIMS we see today.

Access to real time, accurate information isn't only critical for government decision-makers, so a decision was made to create additional functions in FIMS for fishing industry companies. This new industry portal was called industry-FIMS (iFIMS). It now provides support for hundreds of fishing vessels and fishing industry companies to manage their fishing operations, and to meet their fishing activity reporting obligations to their fisheries authorities – all through electronic reporting (e-reporting).

A tablet-based application was developed to allow vessels to e-report catch and other information such as vessel position, notices, and observer requests. Data can be lodged to fisheries authorities direct from the iFIMS portal.

FIMS Fit for Purpose

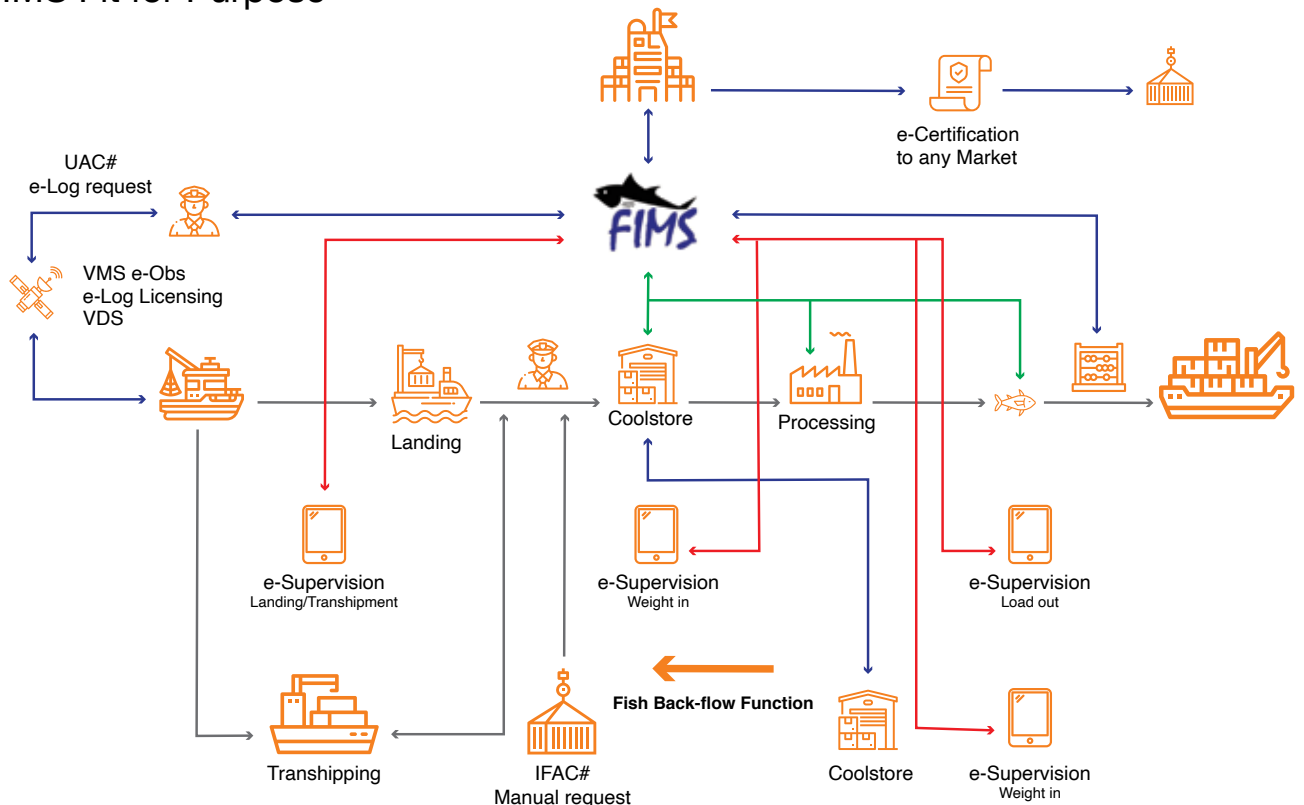
FIMS is now a mature system consisting of a suite of integrated modules for fisheries licencing, catch documentation – and certification and audit for catch-tracing and compliance.

FIMS is also used in compliance case management, with full accountability and transparency to support compliance actions. A comprehensive fisheries observer module allows for observer bookings and management, plus electronic reporting and debriefing. This module also provides a 24/7, two-way secure communication link between onboard observers and their onshore observer programs, supporting both observer safety and observer program integrity. In addition, the system includes a comprehensive vessel and client register, as well as providing for asset tracking in near real-time for vessels through the Vessel Monitoring System (VMS) and the vessel's Automatic Identification System (AIS).

A powerful component of the system is the VDS module which assists agencies to view all VDS interactions, with full accountability and transparency. Agencies can be confident the VDS data displayed in FIMS is accurate – as long as the vessel is reporting its position and catch data accurately of course!

As FIMS and its associated modules grew, so did the QAC team. Joining the FIMS leadership of Darren Saunders and Mark Oates, expert developers, software and hardware resources, project management, industry support and training personnel came onboard to provide a higher level of service and support to all FIMS and iFIMS users.

FIMS Fit for Purpose



Chain of Custody Certification

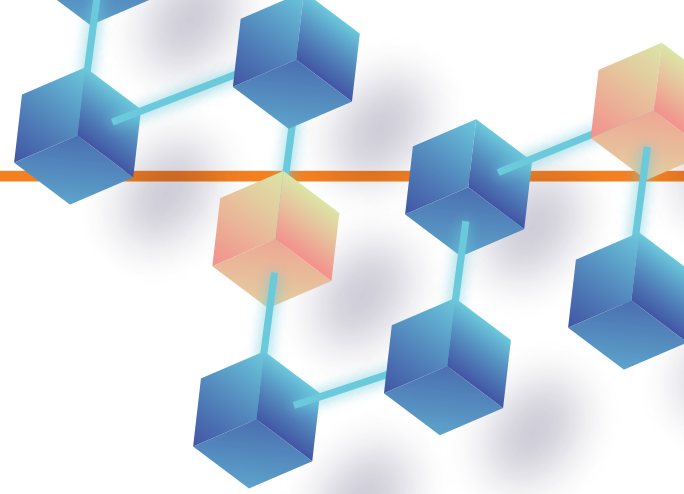
Fishery chain of custody is a term used to describe a trail of evidence: the process of chronological documentation that records the sequence of custody, control, transfer, and disposal of tuna – all the way through the supply chain from the boat that caught the fish, to the shop that sells it to the customer. Every PNA product package has a code on it, which buyers can use to see where and when their fish was caught, and on what boat. Consumers just have to go to the website: <http://www.pacifical.com/blockchain/>

Whilst MSC certification provides recognition that a fishery is sustainable, it is the Chain of Custody (CoC) certification which provides the guarantee to consumers that what they are actually buying, has come from the MSC certified fishery. For the PNA, this is particularly important because the MSC certificate only covers fish caught from free-swimming schools, and not fish caught around Fish Aggregating Devices (FADs) or other floating objects. Free school fish catch needs to be kept separate from other catch, right through the supply chain.

To achieve this goal, a unique CoC program was developed, tailor-made for the purse seine fishery, which goes further than MSC requirements.

- The PNA CoC was first certified in 2013.
- It was recertified in 2016, and again in 2019.





The CoC program is independently audited every year. Under the program, the PNA Office is the central office with more than 360 individual sites made up of fishing vessels, carrier vessels, and regional container loading wharf sites. The scheme is supported by data collected and verified by independent observers. Reporting occurs at several stages of the supply chain, including transshipment of catch, offloading in port, and fish grading at the cold store receiving the catch.

Other important aspects of the PNA CoC include:

- All vessels and plants are subject to a compliance agreement.
- All observers, vessel officers and company contacts are MSC trained.
- 100% at-sea observer coverage, including monitoring of sets, storage onboard and well transfers, to ensure no mixing.
- 100% observer monitoring of transshipments and discharges right through to the factory/cold store.
- 100% daily e-reporting by vessels.
- Minimum in-hold physical separation of MSC eligible and non-eligible tuna.
- Mandatory weekly MSC reports by all vessels.
- Captain's declaration/log sheets and industry data provide a back-up to validation.
- Hourly satellite monitoring of vessels, and other surveillance data.
- Mass balance checks by weight.
- Checks for FAD indicator species in batches of catch.
- Additional ad-hoc internal audits by PNA observers, placement officers, and Pacificall surveyors.
- Social monitoring by observers whilst on board vessels.

The PNA CoC scheme operates like a series of filters, with no catch eligible for certification until it has passed through all the filters. The scheme has a unique feature in that there is no self-certification – everything is independently monitored and verified.

In late March 2020, the unprecedented impacts of the COVID-19 pandemic led PNA Parties to temporarily suspend the requirement for 100% observer coverage in the fishery and limit the availability of observers for monitoring transshipments and discharges in PNA ports.

This decision was taken in the interest of health and safety of all PNA nationals as well as the logistical difficulties resulting from the closure of borders, airports and seaports which made the transfer of observers between zones and even within countries practically impossible.

The PNA decision has allowed Parties to maintain observer services where possible. To date observer coverage has been maintained between 20-40% - a rate significantly higher than most other tuna fisheries globally. PNA Parties have also designated areas of territorial seas adjacent to “designated” ports for controlled transshipment activity to continue.

The PNA CoC programme has been revised accordingly so there is still demonstrable and continually verified traceability from the MSC eligible set to MSC well/storage, through transshipment and discharge of MSC eligible Skipjack and Yellowfin at processors, as well as out turns, so that only the validated weights per species are to be certified.

All other requirements and procedures have remained the same and the PNA CoC is still significantly above and beyond the basic MSC CoC standard requirements.

Over the last 5 years only 1 in 1,000 trips have had reported incidents where non MSC eligible product could potentially have entered the supply chain as MSC certified. Despite reduced monitoring due to COVID-19, we remain confident in the absolute validity of the PNA MSC CoC scheme.

Economics in the Purse Seine Fishery

Economic data about fishing fleets and fishing operations helps decision-makers to make better choices about both fishery management, and access fees. Good data supports resource sustainability, industry viability, and strategies to maximise benefits for the Parties to the Nauru Agreement (PNA).

Economic Data Helps Better Decision-Making

The PNA's economic modelling helps to monitor the economic performance of both the purse seine and longline fleets. Annual reports are prepared for officials and ministers to help assess the profitability of each fishery, which in turn assists in determining benchmark prices and access fees for bilateral and multilateral negotiations, and Vessel Day Scheme (VDS) tender processes.

Purse seine

The purse seine fishery economic analysis has taken place since 2009 and provides the basis for strengthening country awareness of vessel profitability and general economic performance, against a backdrop of changes in fish sale prices.

Economic findings for the 2020 year are:

- The annual weighted Bangkok skipjack price rose by 9% from \$1,266/metric ton (MT) in 2019 to \$1,374/MT in 2020.
- Purse seine fleet economic rents (profits) generated in Western and Central Pacific Fisheries Commission waters (excluding the high seas) are estimated at \$482 million in 2020, which is significantly down from \$633 million in 2019.

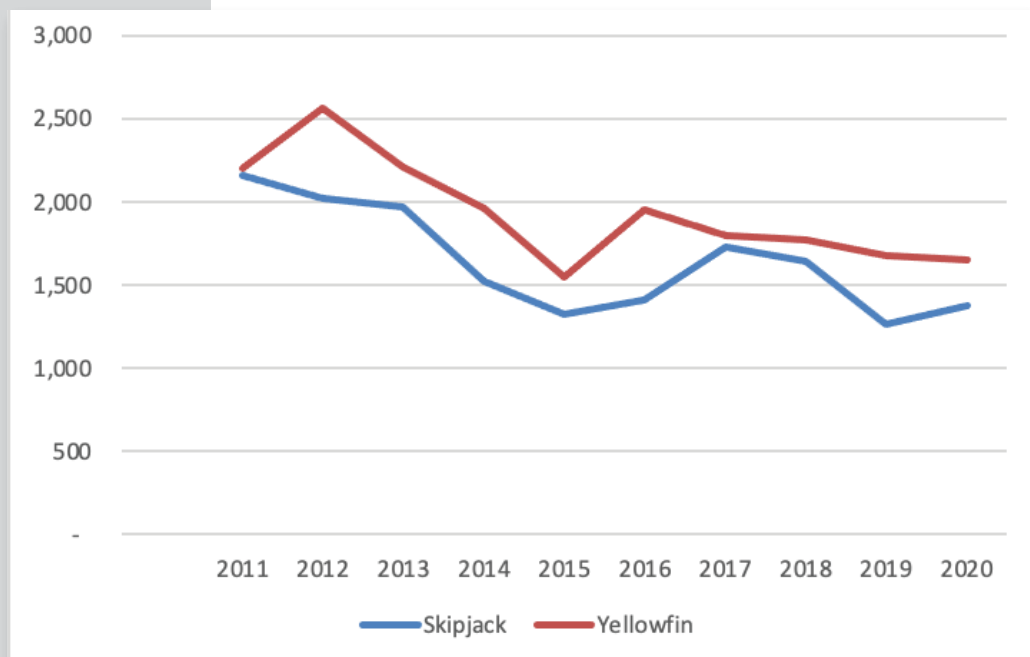


Figure 1: Bangkok Skipjack price trends, 2011-2020

- The average vessel profits for 244 purse seine vessels, after access fees, were estimated at \$12,085/day in 2020, compared to 10,638/day in 2019. The upturn in vessel profits was primarily due to the significant drop in fuel prices which have fallen from a high of around US\$ 2.9 million per vessel in 2018 to US\$ 1.4 million in 2020.
- With an assessment of vessel profitability of the 244 vessels on the PNA register, 159 vessels (65%) were estimated to be operating on economic rents above the agreed benchmark of \$8,000/day.
- Catch per unit of effort (CPUE) fell marginally from 35MT/day to 34 MT/day across the fleets, with a slight decline in yellowfin tuna catches.
- The historic picture of vessel profitability against access fees, demonstrates how the PNA has successfully captured an increasing proportion of the rents over the years. Earnings generated from purse seine access fees were \$516 million in 2019.

Tropical longline

COVID 19 had a marked impact on most tropical longline caught fish prices. Prices for frozen sashimi bigeye and yellowfin fell by 27%, and 13% respectively. However, despite the reported decline in demand for sashimi in Japan, the price for fresh sashimi yellowfin recovered, increasing in the year by 9% overall, whilst the price of fresh bigeye fell by 3%. The price of Albacore, caught by the southern longline States increased by 27%.

The average days recorded by longline fleets fishing in the SI, FSM, RMI and KI Exclusive Economic Zones (EEZs) were 184, 123, 190, and 200. Some vessels benefitted from the increase in Albacore price, but the catch per unit of effort (CPUEs) fell from 900 kgs/day in 2019 to 660 kg/day in 2020 (FIMS e-reports). Some of the other vessels transferring out of zone north of 0 degrees, transferred to targeting albacore on the high seas, outside the PNA EEZs. Longline vessels (industrial sashimi, Ultra Low Temperature (ULT), and fresh) were however, largely unprofitable in 2020. This was despite their ability to diversify to albacore, and the significant reduction in fuel price.

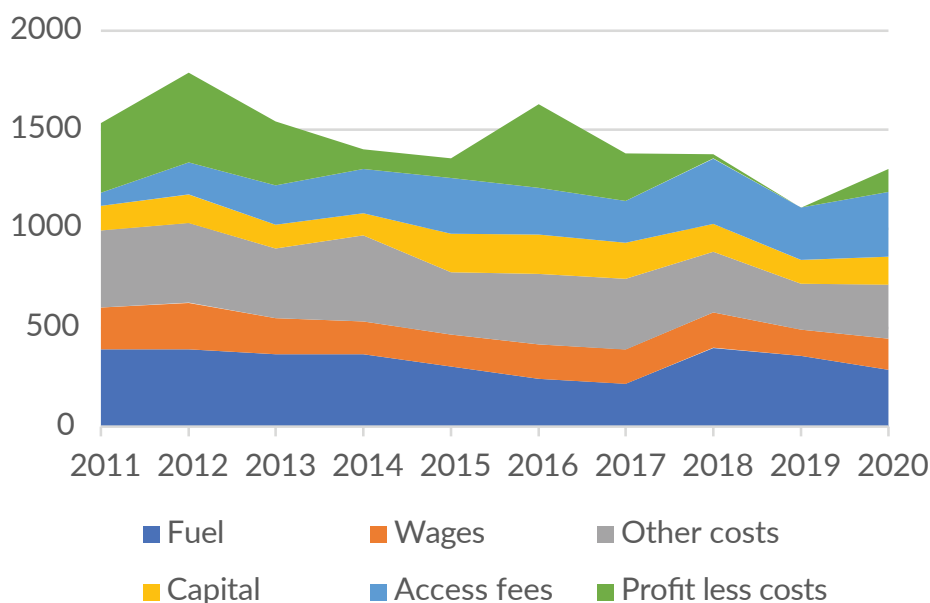


Figure 2 shows how estimated profits have fluctuated in line with changes in prices and costs:

Marine Stewardship Council - Certified Sustainable

Eleven years ago, Parties to the Nauru Agreement (PNA) leaders tasked the newly established PNA Office to proceed with a full assessment for Marine Stewardship Council certification of the PNA skipjack fishery, with the goal of increasing the value of the tuna resource.

MSC assessments are ecosystem based. They take into account the three pillars of:

- The best available science for sustainable fish stocks.
- Minimizing environmental impacts.
- Effective fisheries management.

Assessments are conducted to these standards by independent assessment bodies.

So, how have we done?

- In 2011, the free school skipjack fishery in PNA waters became the first industrial purse seine fishery in the world to be MSC certified.
- In 2016, free school yellowfin was also added to the certification.
- In 2018, certification was expanded to include catches in the Tokelau Exclusive Economic Zone.

So, what is the Marine Stewardship Council (MSC)?

The MSC is an international non-profit organization on a mission to end overfishing, and to restore fish stocks for future generations. Their stated aim is for future generations to be able to enjoy seafood, and oceans full of life, forever. The MSC's vision is one of oceans teeming with life, and seafood supplies safeguarded for the present and future. The MSC's mission is to use their ecolabel (the 'blue fish' tick) and fishery certification program, to contribute to the health of the world's oceans by recognizing and rewarding sustainable fishing practices, influencing the choices people make when buying seafood, and working with partners to transform to a sustainable seafood market.

What exactly is MSC certification? For wild fisheries, MSC certification is the gold standard ecolabel certification. Ecolabels are a voluntary identification system for food and consumer products. They are a form of sustainability measurement, intended to make it easy for consumers to satisfy their environmental concerns when they purchase products. The first tuna ecolabel most people can remember was "dolphin friendly". These days it's not just about being friendly to one animal or one part of the ecosystem, but to the entire ecosystem.

Our certification program has been continuously and successfully reviewed and renewed.

PNA incentivizes free school fishing by maintaining a free-school premium for MSC certified fish through the Pacific Geographical Indicator (GI). Today, the Western Central Pacific Ocean (WCPO) is the only ocean with more free school sets and catch than FAD sets and catch and the WCPO is the only ocean with all major tuna stocks considered healthy.

- However a change in MSC policy means that PNA is required to certify the entire fishery or lose its MSC certification in 2023. In 2020, PNA entered into an expedited assessment of FAD sets so that the entire fishery can be certified MSC in 2021.

Planning for a Strong Future - The PNA Planning Framework

The PNA planning framework provides transparency and certainty for the Parties, and ensures the ONA Offices activities and budgeting are transparent and accountable.



There are three layers to the PNA planning framework:

1. The PNA Strategic Plan 2019-2025 lays out the high-level direction the Parties want for the PNAO.
2. The annual PNAO Business Plan provides details of the work to be undertaken by the PNAO in the next year (the annual workplan), with an indication of new directions and new projects over a further two years. The plan includes budget estimates.
3. Individual work plans for PNAO staff. The individual work plans allocate responsibilities for annual workplan activities to each PNAO staff member.

The PNA planning framework is built on the foundations of the three objectives of the PNA Strategic Plan:

- i) A stronger PNA.
- ii) PNA influence on sustainable management of tropical tunas is maintained and grown.
- iii) Socio-economic opportunities throughout the fisheries value chain are identified, and like-minded Parties cooperate to capture them.

The PNAO Business Plan

The PNAO Business Plan is broken down into four parts that reflect the core business functions of the office:

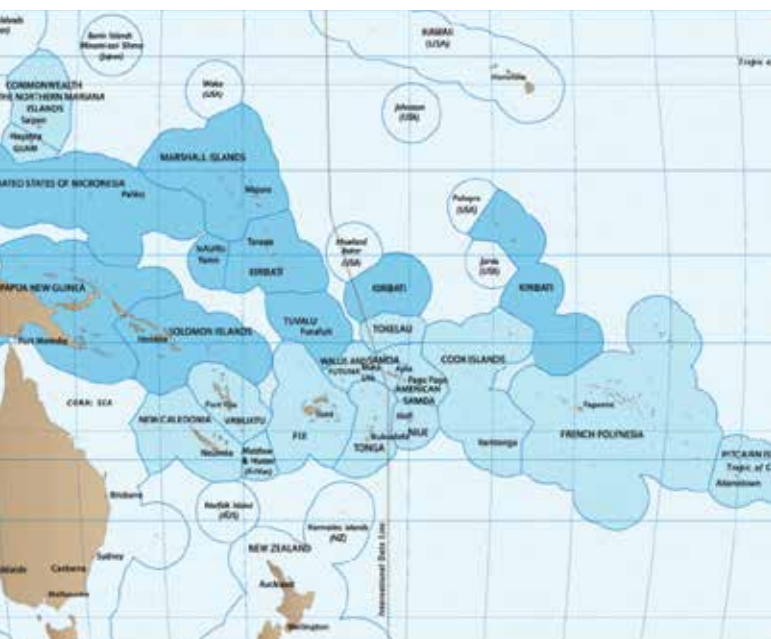
1. The VDS
2. Pacifical and MSC
3. PNAO Operations
4. The Office
 - a. Support activities for the PNA
 - b. Corporate and Executive

During 2020, the Business Plan included a range of governance reform projects that were successfully implemented, with other continuing into 2021.

These included the PNAO Policy Manual, the risk framework, Audit and Budget Committee terms of reference, creating a PNAO core business statement, documenting the PNA governance framework, reviewing financial policies and procedures, further developing the monitoring and evaluation framework, reviews of staff job descriptions and contracts, implementation of individual work plans, reviewing PNA meeting rules of procedure, developing a dispute resolution process, developing donor engagement and meeting observer policies, reviews of staff and financial regulations, and developing information security policy and data sharing policy.

Key Policy Issues For The PNA – Now And In The Future

By way of background, soon after establishing their EEZs in the late 1970s and early 1980s, eight countries agreed to align their policies for managing tuna fisheries in their EEZs. They signed a small but important piece of international law, the 1982 Nauru Agreement. The Parties to the Nauru Agreement was born! In that early stage, PNA policy-making was focused on harmonising the management of foreign fishing in their EEZs through legally-binding arrangements, and applying terms and conditions for fishing access. These were set out in the 1st and 2nd Implementing Arrangements to the Nauru Agreement.



The Parties to the Nauru Agreement (PNA) policy settings are extremely complex, in part because the tuna resources in PNA waters are a portion (albeit a large portion) of a common stock that extends beyond the PNA Exclusive Economic Zones (EEZs). These common tuna stocks are also fished for by other Pacific Island countries outside the PNA, as well as Indonesia and the Philippines. Additionally, they are utilised by states whose fleets fish the high seas, including some powerful distant water fishing states.

As a result, PNA's engagement in policy-making includes collaborating with other Pacific Island countries, Australia, and New Zealand through the Pacific Islands Forum Fisheries Agency (FFA); and, since 2004, with a broader group of coastal states and distant water fishing states via the Western and Central Pacific Fisheries Commission (WCPFC).

Over time, the scope of PNA policy-making has broadened. Limits on the numbers of purse seine fishing vessels were adopted in the 1992 Palau Arrangement, while preferential reciprocal arrangements for domestic purse seine vessels were adopted in the 1994 Federated States of Micronesia (FSM) Arrangement.

With over 90 percent of the industrial purse seine fishery occurring in PNA waters, the FSM and Palau Arrangements – together with the 1st and 2nd Implementing Arrangements – began to substantially control the regional tuna purse seine fishery, and reshape it in directions that increased the benefits from the fishery to the PNA.

The PNA's control over the regional tuna purse seine fishery was further strengthened by the implementation in 2007 of the purse seine Vessel Day Scheme (VDS), and the adoption of an associated set of measures in the 3rd Implementing Arrangement. These measures include a seasonal closure on Fish Aggregating Devices (FADs), 100 percent purse seine observer coverage, and compulsory retention of all tuna catches. The VDS and these associated measures, now underpin the management of the purse seine fishery throughout the Western and Central Pacific Ocean (WCPO).

PNA's policy-making capacity was broadened and strengthened with the establishment of the PNA Office in 2010, with policy development being one of the core functions of the Office. The key elements of current policy development include:

- VDS policy development.
 - o This includes providing advice each year on setting Total Allowable Effort (TAE), allocating Party Allowable Effort (PAE), collaborative pooling arrangements, and enhancing the longline and purse seine VDSs.
- Continuing the development of collaborative arrangements for management of fishing in PNA waters.
 - o This work is currently focused on enhanced management of FADs, including a globally-innovative FAD registration and tracking program; new FAD reporting initiatives, and requirements for e-reporting. It also includes a PNA ban on vessels which engage in high seas bunkering, and the development of a PNA e-Monitoring program.
- PNA engagement with other Pacific Island Countries.
 - o Working with the FFA, PNA contributes to broader regional policies and standards, which serve the interests of Pacific Island countries.
- PNA engagement with the WCPFC.
 - o PNA uses the leverage of the high standards covering the large volume of fishing in PNA waters, to promote compatible management arrangements throughout the WCPO.
- Providing policy analysis and advice.
 - o The current focus is on emerging economic and conservation-related issues that may affect the PNA tuna fisheries. The impacts of climate change on fish stocks and distribution are becoming increasingly important.

The extensive policy agenda is developed through support for discussions amongst the Parties at PNA meetings; support for the Parties at meetings of the FFA, WCPFC and other relevant bodies; and the direct participation of the PNA Office in relevant technical working groups and other collaborative arrangements.

This long-standing support framework for policy collaboration within the PNA, has been highly successful in promoting effective tuna conservation and management among the Parties. It has also meant that PNA initiatives and policies are applied effectively and more generally throughout the WCPO, which benefits the PNA and other Pacific Island countries.

Key measures of the effectiveness of PNA policy-making are:

- The increase in fisheries-related revenues to Parties from US\$60-70 million to US\$450-500 million over the past ten years.
- Continuing expansion in PNA domestic tuna fishing and onshore processing operations.
- The conservation and management measures applied by the Parties, which support the uniquely-positive status of regional tuna stocks when compared to other oceanic regions. WCPO tuna fisheries are the only sustainably-harvested tropical tuna fisheries in the world.



PNA Office Finance Reforms – 2020 Brought Welcome Change

In 2019, the Parties appointed Deloitte New Zealand to undertake a finance function review of the PNA Office. As well as reporting on the PNAO’s financial position, the objectives of the review included identifying:

- The issues that needed to be addressed to ensure the PNA has confidence in the PNAO’s financial position.
- What systems needed to be improved to ensure the finance function is efficient and effective and meeting the needs of decision-makers and stakeholders.
- What finance capabilities are needed in the finance team.
- The investment required to support the strategic direction of PNA.

The outcomes sought from the review were that:

- The CEO would have higher quality, timely information to manage the PNAO.
- Staff would have the necessary financial information to do their jobs.
- The Parties would have better financial information to help understand the costs of services and inform pricing decisions, and to help them exercise their governance responsibilities.

This review proved to be a turning point for the PNAO. The review was endorsed by PNA Ministers in September 2019, and was fully implemented in 2020. Review recommendations, and responses and actions, are summarized in the following table:

Recommendations	Responses and Actions
Improve governance practices with regular management reporting, success measures, better explanation of PNAO core business, better communication, and adaptable governance processes. Need to agree performance areas and measures for PNAO to report against.	A significant range of governance projects have been completed, including new terms of reference for the Audit and Budget Committee, a review of PNAO salaries, implementation of individual workplans, and the risk management framework. Others are underway, including revised financial policies and procedures, drafting new PNAO regulations, and developing a sustainable funding strategy.
Prepare a business plan which clearly articulates priorities.	2020 Business plan approved. 2021 Business Plan approved.
Update the 2020 budget so the true cost for work programs is known, with clear treatment of Office and Party revenue, that aligns with business plan priorities. The updated budget adjusted and reformatted to show each work program, and one-off activities.	2020 budget approved. 2021 budget approved.
Update key financial policies for Office and Party revenue and expenditure, with a formal approach to cost allocation.	Financial policies and procedures are up to date, and under constant and ongoing review.
Revise the chart of accounts to reflect accounting policies, to support reporting and budgeting, and to meet audit requirements and treatment of revenue and expenditure.	A new chart of accounts completed and implemented.



Recommendations	Responses and Actions
Implement a CEO reporting framework to report against KPIs to an agreed timetable that presents the facts around the financial and non-financial performance of key work programs.	Monitoring and evaluation requirements are included in the Business Plan and a trial is underway for a monitoring and reporting database.
Review capability of PNAO finance function.	Senior Accountant and Finance Officer positions were both filled in 2020.
Upgrade finance system.	The Xero finance system has been implemented.

Deloitte NZ was retained to advise the PNA Office on review implementation, giving staff access to real time support and advice.

The year 2020 brought transformation to the accounting department with the addition of the Accounts Clerk, Sladen Jieta, and Senior Accountant, Kaili Kramer-Andrike who are both from the Marshall Islands.

Sladen's work experience included working with the Bank of Marshall Islands, and he is confident in his core roles of invoicing, reconciling, and billing transactions. Kaili graduated Portland State University with a double major in Business Administration: Accounting and Finance and was previously an Auditor for Deloitte Guam.

During the Ministers meeting in November 2020, the Office presented the 2020 unaudited Financial Statements and instantly presented the restructured 2021 Budget based on the decision made by Ministers on the new sustainable funding strategy to be implemented in 2021. This allowed Parties to see the outcome of their decision in real time and the effect on the Offices financials.

Quarterly financial reports have been timely provided to the Audit and Budget Committee (ABC) for discussion with the final reports being sent to Parties. Budget to actual expenditures and revenues are monitored daily with any overruns being discussed with the CEO.

At the direction of the Parties, the Pacific accounts are separately maintained in QuickBooks.

Kaili and Sladen have continued to consolidate their positions with the PNAO, are enjoying the challenges. The new finance team are a great asset to the office.

Whilst the ABC has been running for several years now, 2020 saw the committee operate in a more traditional role, with regular meetings, and a standard agenda. The ABC comprises:

- Chair: Charleston Deiye, CEO, Nauru Fisheries and Marine Resources Authority.
- Ex-officio member: Ludwig Kumoru, CEO, PNA Office.
- Member: Kathy Sisor, Manager, Bureau of Oceanic Fisheries Management, Palau.
- Member: Eugene Pangelinan, Executive Director, National Oceanic Resource Management Authority, FSM.
- Member: Stan Crothers, Adviser to the Tokelau Fisheries Management Agency.
- Secretariat: Kaili Kramer-Andrike, Senior Accountant, PNA Office.

The committee has worked hard to provide Parties with effective advice and input into issues falling within their terms of reference, leading to more streamlined and informed decision making by the Parties. A key decision in 2020 was the Sustainable Funding Strategy which represents a milestone for future funding arrangements for the PNA Office.

The PNA Observer Agency – Keeping Them Honest

The Parties to the Nauru Agreement (PNA) Observer Agency, known as the POA, was established by PNA Ministers in 2011 at their 6th annual meeting.

The goal of the POA is to support the PNA's long-term strategic interests in high-quality fisheries monitoring. The agency is managed under contract by MRAG Asia Pacific, an independent consulting firm dedicated to the sustainable use of natural resources through sound, integrated policies and practices. Since the program started in 2013, the POA has coordinated more than 115,000 observer sea days (the 100,000 milestone was reached in 2019) making it one of the largest programs of its type anywhere in the world.

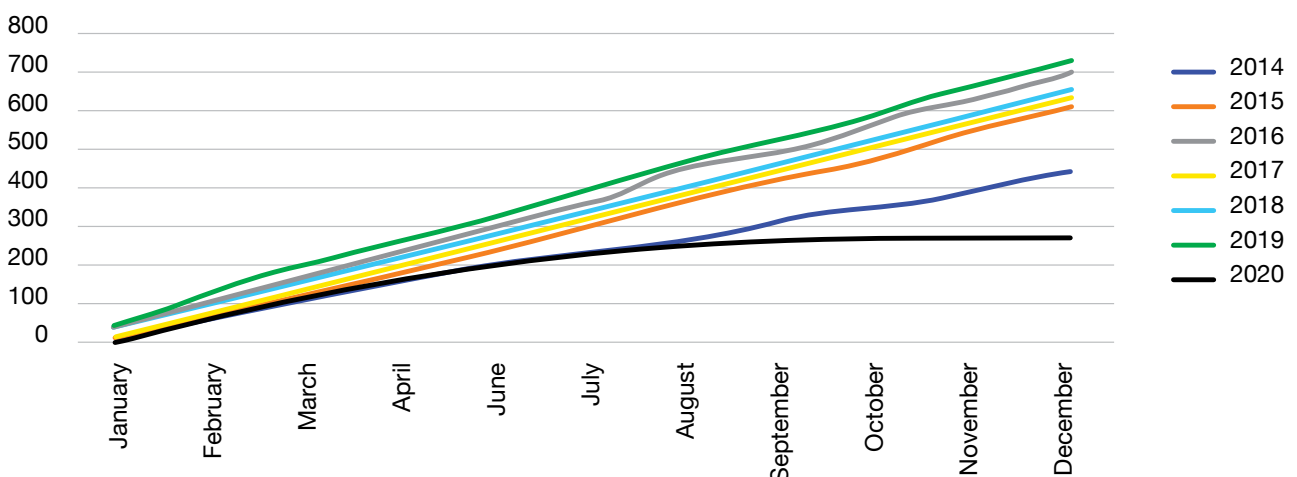
The PNA has a fisheries observer on board every purse seine fishing vessel operating in PNA waters. Observers are independent monitors of what happens at sea and an important tool in keeping a watch on compliance with PNA conservation and management rules. Observers are trained in sampling techniques and provide a comprehensive report of every day at sea.

The POA continues to maintain a comprehensive support network for observers, with offices in Pohnpei, Majuro and Rabaul, and agents in each of the main transport and transshipment hubs. Networks of regional financial institutions, accommodation and meal providers, and travel and transport suppliers have all been established to provide support for observers and vessels as they move around the region.

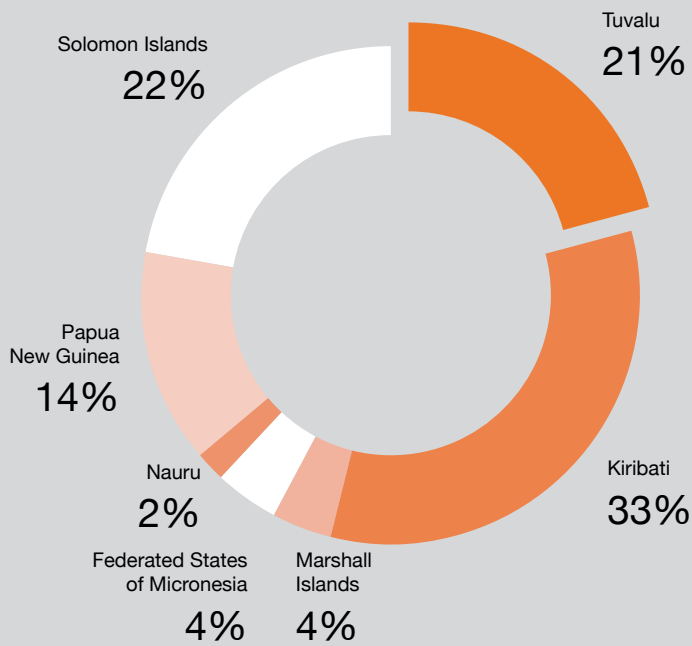
As with most aspects of global life, 2020 was a challenging year for the POA. In March 2020, Parties made the difficult decision to temporarily suspend the 100% observer coverage requirement for purse seine vessels in light of COVID-related logistical difficulties and concerns for observer safety. Much of the POA's focus in the middle part of 2020 was then on arranging for the safe repatriation of the 72 observers on active duty at the time of the suspension. While the repatriation exercise was extremely challenging for all involved, we are pleased to say that the challenges were overcome with strong cooperation and teamwork between observers, Observer Coordinators, fishing companies and Party officials. By the end of October 2020, 70 of the original 72 observers had been safely repatriated to their home ports. Two FSM-national observers remain in Guam awaiting repatriation to Pohnpei with the POA continuing to provide support.

Despite the challenges associated with the temporary observer program suspension, the POA successfully coordinated 10,092 sea days across 301 trips in 2020.

Total observer trips POA



% sea days by Party, 2020

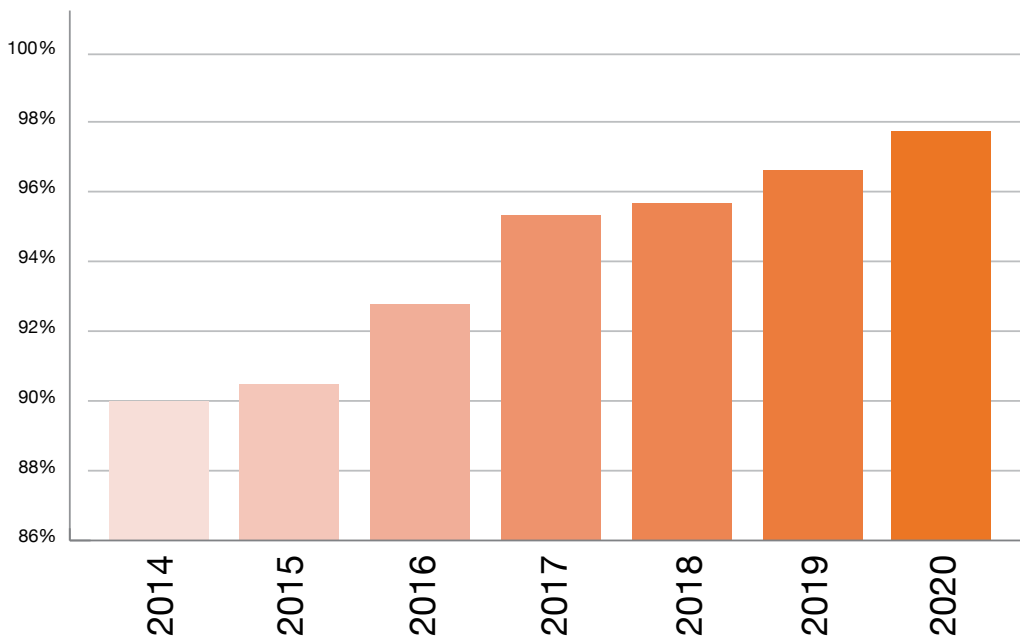


The quality of data obtained from each observer trip is measured through an end-of-trip debriefing process. The debriefing scores achieved by POA observers have improved every year and this year reached a new milestone, averaging 97.8%.

Observers start their trips by boarding vessels from a number of ports. During 2020, Rabaul was the busiest port, with Majuro, Pohnpei, Tarawa and Funafuti also active.

The share of observer sea days in 2020 was strongly influenced by COVID-related border restrictions. Parties who's observers were able to be repatriated quickly received accounted for fewer days, while Parties who's borders remained closed for longer accounted for more days, as observers remained at sea.

Average debriefing score



The Golden Caliper awards for the best-performing observers in 2019 were decided at this meeting. These went to:



Other Notable Highlights From 2020

- In order to best position observer programs to transition to e-reporting upon the resumption of observer coverage, the POA developed an online e-reporting training course for the iFIMS app in the second half of 2020. Observers can undertake the training at any time, at their own pace, with technical assistance provided by POA and other trained staff.
- POA staff also developed an online placement training course to facilitate placements in foreign ports. The course is being road-tested with senior observers in the PNA region before roll-out to external ports.
- The POA undertook a review of FSMA vessel insurance coverage for observers, as well as examining options for strengthened observer coverage across the region.
- The POA continued to roll-out and refine the new system of handling of 'serious' offences picked up during debriefing. The new system provides key Parties an alert with relevant supporting information to facilitate early investigation.

In February 2020, a highly productive POA Coordinators' meeting was held in Funafuti. This was a valuable forum for discussion and the development of recommendations to continuously improve the program. Key issues discussed included observer accommodation and e-reporting. Excellent hospitality was provided by our hosts, the Tuvalu Fisheries Department. Thanks go to Harold Vilia from the Solomon Islands Ministry of Fisheries and Marine Resources for Chairing the meeting.

Parties can be confident in the POA's systems, which are managed under MRAG Asia Pacific's certification under the internationally-recognised Quality Management Standard ISO 9001.



“ Thanks go to Harold Vilia from the Solomon Islands Ministry of Fisheries and Marine Resources for Chairing the meeting.

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Our Dedicated Staff



Ludwig Kumoru
CEO

Ludwig Kumoru has been involved with the PNA for over 20 years, first as a representative from PNG and now as the PNAO's second CEO. Ludwig's background is as a biologist and fishery manager with the PNG National Fisheries Authority (NFA). He held a position as NFA Deputy Managing Director when he joined the PNAO in 2016.



Maurice Brownjohn
Commercial Manager and
FIMS Inc. Company Secretary

Maurice Brownjohn left England for PNG in his 20's where he built a career in the tuna industry, becoming a leader in bridging the gap between government and industry. He joined the PNAO in 2010 to help establish the new office in Majuro. His responsibilities as Commercial Manager include oversight of MSC certification, Pacific, FIMS Inc, and the PNA Observer Agency, as well as supporting the Parties in their tuna fishery related commercial development activities.



Aketa Taanga
VDS Manager

Aketa Taanga is the VDS Manager. She joined the PNA Office in 2020 from Kiribati where she led the management of the VDS in Kiribati in her former role as the Director of Licensing Compliance Division for the Ministry of Fisheries and Marine Resources Development, where she had worked in offshore licensing and compliance for more than 10 years. She has extensive involvement in regional meetings and decision making for the Palau Arrangement, the Parties to the Nauru Agreement, and the FSMA.



Kaili Kramer-Andrike
Senior Accountant

Kaili Kramer-Andrike is the Senior Accountant for the PNAO. She is from the Marshall Islands and joined the office in 2020 from her previous position as Senior Auditor at Deloitte in Guam. Her key duties include monitoring and reporting of the PNAO's budget and financial position, ensuring accounting standards are adhered to, leading and supporting accounting staff and consultants, supporting the CEO with monthly financial reports, and supporting the Audit and Budget Committee.



John Kelimana
IT Manager

John Kelimana is the IT Manager. He joined the office in 2017 from his previous post at the Solomon Islands Government’s ICT Support Unit. His key duties include network and IT systems administration and support, verifying observer data, and delivering MSC training to observers.



Sladen Jieta
Accounts Clerk

Sladen Jieta is the Accounts Clerk. He is from the Marshall Islands and joined the office in 2020 from his previous post at the Bank of Marshall Islands. Key duties include day-to-day financial transactions, including invoice processing, book-keeping records, billing support, tracking expenses, and working with clients to assist with transactions.



Loreen Bigler
Corporate Services Manager

Loreen A. Bigler is the Corporate Services Manager and joined the PNAO in 2011. Loreen is from the Marshall Islands. Her previous post was Finance Manager with the Marshall Islands Visitors Authority. Loreen is responsible for corporate services functions including office policy, and liaison with RMI Government authorities, banks, and other organisations.



Penihulo (Hulo) Lopati
Acting VDS Manager

Penihulo (Hulo) Lopati is the VDS Officer. “Hulo” is originally from Tuvalu where he started his career as an observer before moving into vessel licensing. He joined the PNAO in 2017 as VMS Officer. He was appointed as Acting VDS Manager in 2020 whilst that position was recruited.



Sangaa Clark
Policy Manager

Sangaa Clark has been Policy Manager for the PNAO since 2012, and is originally from Kiribati. Sangaa’s background is in computer science and mathematical modelling. She has extensive experience in tuna fishery management and leads the office in providing a wide range of expert strategic policy advice to the Parties. Sangaa will take up leadership of the PNAO as its third CEO during 2021.





YEAR BOOK 2020



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