



Tuna Fishery Report Card 2022

Introduction

In 2015 Forum Leaders adopted the **Regional Roadmap for Sustainable Pacific Fisheries** setting out shared goals and strategies for the management of the region's tuna fisheries. The shared goals relate to sustainability, value, employment and food security with the goals to be achieved over the 10-year period to 2024. Subsequently, Forum Leaders established the **Taskforce on Increasing Economic Returns from Fisheries** to deliver real results within 5 years. The Taskforce developed four programme components: reform of the management of the longline fishery; increasing the value of employment and ensuring effective labour standards are in place; facilitating investment and trade; and value chain participation and established a number of specific targets to be achieved over a 5-year period.

This **Tuna Fishery Report Card** reports on the four Roadmap goals and provides commentary on trends against the sustainability, employment and food security targets specified for tuna fisheries in the Roadmap¹ and the targets set by the Taskforce. While some general commentary is provided, it is important to note that this Report Card is not intended to be a detailed report on the implementation of the strategies outlined in the Roadmap or the programmes specified in the Taskforce Report.

Additionally, it is important to note this Report Card reports on trends across FFA Members and fisheries as a whole. This masks the substantial differences between FFA Members at national level given their different resource endowments, different management regimes within their waters and different areas of comparative advantage for development of their fisheries resources.

Overview

With respect to the status of the stocks, all four main WCPO tuna stocks (South Pacific albacore, bigeye, skipjack and yellowfin) are deemed to be "biologically healthy" in that they are not overfished nor is overfishing occurring. However, the Roadmap envisaged that target reference points (TRPs) would be set for all four key stocks within three years. Seven years on, an interim TRP is only in place for South Pacific albacore - a TRP that was developed with economic considerations in mind based on expected catch rates in the southern longline fishery. On the basis of the results of the 2021 stock assessment, the South Pacific albacore TRP is being re-evaluated, while the previously adopted interim TRP for skipjack is no longer in place and discussions on an appropriate TRP continue. Wider fishery or climate impacts on the ecosystem are not specifically evaluated here, beyond that of the longline bycatch rate of sharks, which shows a declining trend.

With regard to the economic goals in the Roadmap, value and employment, there are contrasting trends over the period since 2015 with significant increases in activity related measures while government revenue measures have remained relatively flat. With regard to the activity measures the share of the value of the catch taken by FFA Members' fleets in FFA Members' national waters increased 46% between 2015 (when it stood at 39%) and 2021 (when it reached 56%). Similarly, over the period 2015-2021 exports to the four major markets increased by 45% while the volume of the tuna processed or handled onshore rose by more than 50%. Employment has also increased, rising 42% over the period 2015-2021. In contrast, government revenue from access and licensing fees, which increased by over 300% between 2009 and 2015, have remained relatively flat since 2015. While the Taskforce's target of a 25% increase in government revenue from access and licensing fees was not achieved it is important to note that for the purse seine fishery the rate of return in 2015 was in excess of 20% and that a similar rate of return continues to be achieved. Given that there were a number of factors placing downward pressure on

¹ Reporting against the Roadmap's coastal fisheries goals and indicators is provided in the Coastal Fisheries Report Card.

access fees in recent years the ability of members to maintain purse seine access fee revenues demonstrates the resilience of PNA purse seine Vessel Day Scheme (VDS).

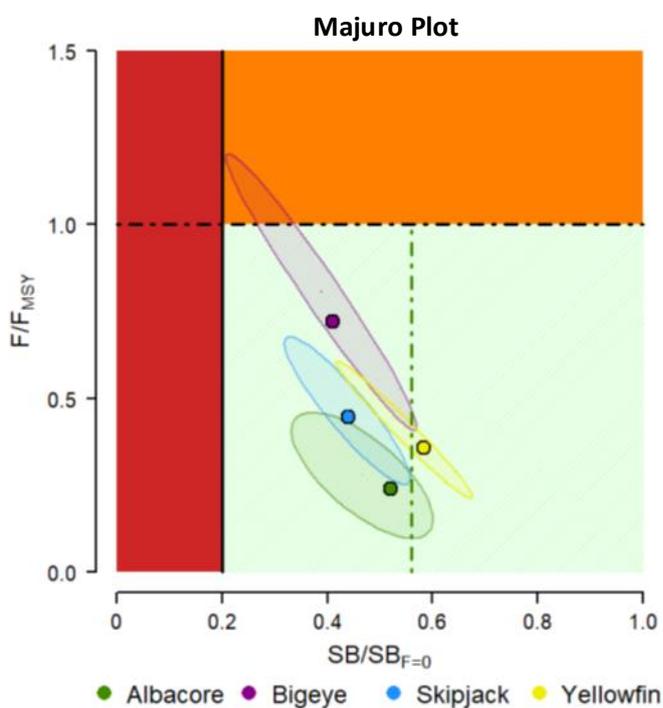
With regard to food security, given the lack of baseline data on the contribution of tuna to food security, it has been difficult to assess progress against the Roadmap target in this area. However, a number of studies have been conducted in recent years in order to assess how much tuna enters local markets for domestic consumption and the results of these studies are outlined. In addition, a study aimed at providing Members with a detailed analysis of potential policy options with regard to increasing the contribution of tuna fisheries to national food security and the applicability of these to their circumstances was presented to Members for their consideration in October 2022. A program to support members to, where appropriate, implement the potential policy options outlined in the report is being developed and be available to members in 2023.

Goal 1 – Sustainability

The **Roadmap** provides a 3-year timeframe for the agreement of Target Reference Points (TRPs) for key tuna stocks, and a 10-year timeframe for the implementation of management measures to achieve these TRPs in order to support economically viable fisheries. Currently, the Western and Central Pacific Fisheries Commission (WCPFC) has an interim TRP for albacore only, and this is currently under review, with discussions on adopting a new interim TRP for skipjack ongoing. While analysis and associated discussions with regard to yellowfin and bigeye TRPs are also ongoing, it seems unlikely that they will be adopted by the WCPFC in the period before the next report.

Target Species

The ‘Majuro’ plot on the right illustrates the relative status of each of the main tuna stocks against biological reference points (black lines). The traffic light colouring provides a rapid indication of the biological ‘health’ of each stock, with the overall intention to stay in the green and avoid the red and orange quadrants. All four main WCPO tuna stocks (South Pacific albacore, bigeye, skipjack and yellowfin) are deemed to be in the green area indicating that these stocks are “biologically healthy”, **not overfished nor is overfishing occurring**, noting there is a risk (a 1 in 8 chance) of overfishing occurring for bigeye tuna. This is an improvement since 2015 because improved scientific knowledge has indicated that bigeye tuna is no longer overfished nor subject to overfishing. The WCPO is now the only ocean region globally where all the major stocks are being fished sustainably. However, there is no room for complacency with the biomass of most stocks continuing to decline, and a need to address weaknesses and gaps in the management measures currently in place.



Note: Based on the most recently undertaken stock assessments as of September 2021

It is also important to note that just because a stock is within the green “biologically healthy” area it does not mean that the associated fisheries for that stock are performing well economically or that desired management outcomes are being achieved. As shown on the Majuro plot, albacore is currently below its interim target reference point (shown as the green dotted line) which was set at a level to improve catch rates and associated profitability of longline fisheries targeting South Pacific albacore.

The **South Pacific albacore** stock is currently estimated to be below the adopted interim TRP. The reduction in the size of this stock over time has resulted in declining catch rates, and a deterioration in the economic performance of the southern longline fishery which primarily targets it. While the value of the interim TRP for this stock is being reviewed, the stock is still assessed to be below the level required to achieve desired catch rates and is predicted to decline further in the short term unless reductions in catch are achieved. As such, it is vital that management measures are put in place that restrict catch and allow for sustained economically viable catch rates, including for FFA members’ domestic longline fleets.

For the **skipjack tuna stock**, an improved understanding of the stock’s biology and stock status provided by the 2019 assessment has led to further discussions on the appropriate TRP value for this stock. Importantly, the 2019 stock assessment indicated that the skipjack stock status is currently close to the value which would result from the 2012 level of fishing effort, and to the condition of the skipjack stock in 2012 – outcomes on which the initial TRP was aligned when first adopted. A new stock assessment for skipjack is scheduled to be undertaken this year.

Other commercial species

Other commercial stocks that have been assessed and that require further management include **southwest Pacific striped marlin** and **western and central North Pacific striped marlin**.

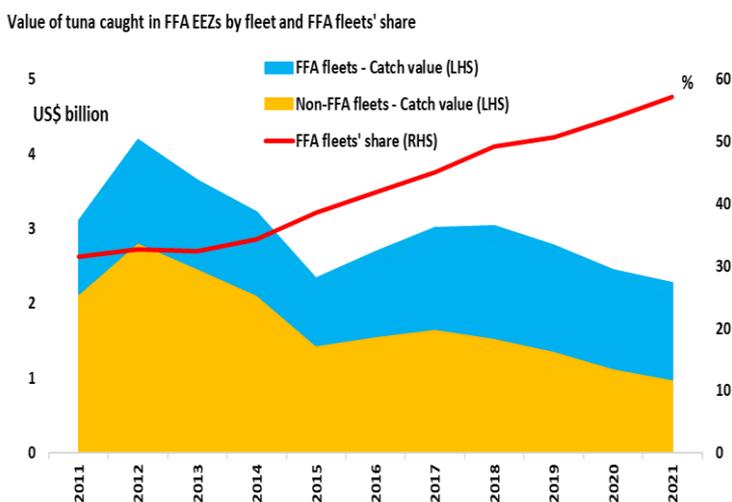
This Report Card does not cover Pacific bluefin tuna as that stock is rarely caught by FFA fleets or in FFA EEZs. As such FFA members have no real control over its exploitation and limited influence on the design of management measures for this stock.

Goal 2 – Value¹

While the Roadmap initially called for a doubling of the value of the region’s tuna catch by 2024 through increases in prices rather than volumes, the Taskforce specified three target areas: the value of foreign access; the value of fishing to GDP; and the proportion of catch value taken by FFA Island Member fleets. The target set in each of these areas was for a 25% increase over 5 years, with these indicators designed to reflect both increased economic returns and increases in coastal State control of the fishery.

The share of the catch value taken by FFA members’ fleets (includes flagged and chartered vessels) within the waters of FFA Members continues to increase as vessels reflagged to FFA members. In 2021 the share of the catch value taken by FFA members’ fleets within their national waters stood at 56% up from 39% in 2015, an increase of 44%. For the longline fishery this share was 70%, the highest level since at least 1997 despite a decline in catch levels with the increase being driven by a significant fall in the catch taken by foreign longline fleets. For the purse seine fishery 54% of the value of the catch taken in FFA members’ waters was taken by their fleets.

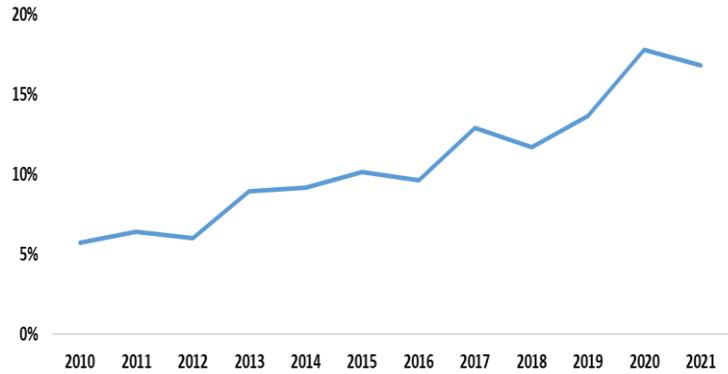
Similarly, across the WCPFC-CA, the share of the catch value of FFA members’ fleets increased from 24% in 2015 to 31% in 2021. For the longline fishery this share was 20% while for the purse seine fishery it was 45%.



¹ In addition to the indicators presented in this section, the Taskforce also set a target of a “25% increase in value of fishing to GDP” over 5 years. Earlier editions of the Report Card have provided estimates of the contribution to tuna harvest sector to GDP (value added). However, the rapid growth of the fleet based in FFA member countries and the difficulty in assessing the location of the economic center of interest of these vessels led to concerns about the accuracy of the approach previously employed and this has now been discontinued.

The volume of tuna processed or handled onshore tuna (round weight) increased by more than 50% between 2015 and 2021 reaching over 245,000mt. This increase continues the upward trend in the percentage of tuna caught in FFA member waters that is processed or handled onshore, which reached 17% in 2021. Developments in recent years include the commencement of operations at the Sino Van fisheries plant in Vanuatu and at the Dayang Seafoods plant in Kosrae, FSM. Another development was the transfer of PAFCO's ownership in Fiji from Bolton to FCF, resulting in more FCF vessels offloading their catches in Levuka and increased production in 2020.

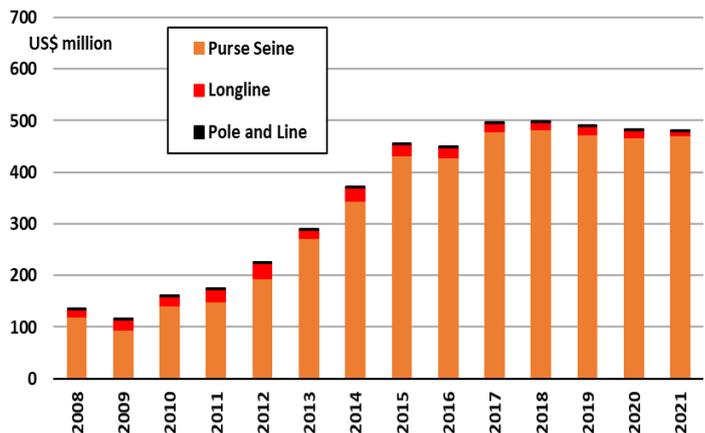
Proportion of catch taken in FFA members' national waters processed or handled onshore



In 2021, government revenues from license and access fee revenue collected by FFA member governments is estimated at \$480 million, similar to 2020 although 4% lower than for 2018 when access fee revenues peaked at \$498 million. After a decade of rapid growth, access fee revenue between 2017 and 2021 were relatively stable in the \$480 to \$498 million range.

While the Taskforce's target of a 25% increase in government revenue from access and licensing fees was not achieved it is important to note that for the purse seine fishery, which provides the overwhelming majority of these revenues, the rate of return (access and licensing fee revenue as a percentage of the value of the catch) in 2015 was in excess of 20% and that a similar rate of return continues to be achieved. This rate of return compares favorably with that earned in other global fisheries. It is also worth noting that a number of factors have likely placed downward pressure on access fees in recent years, including relatively low fish prices, significant operational and supply chain distributions resulting from the implementation of COVID-19 mitigation measures and the increase in the proportion of fishing activity undertaken by national fleets which typically pay lower unit access fees than foreign fleets. Given these factors the ability of members to maintain purse seine access fee revenues demonstrates the resilience of the PNA purse seine Vessel Day Scheme (VDS).

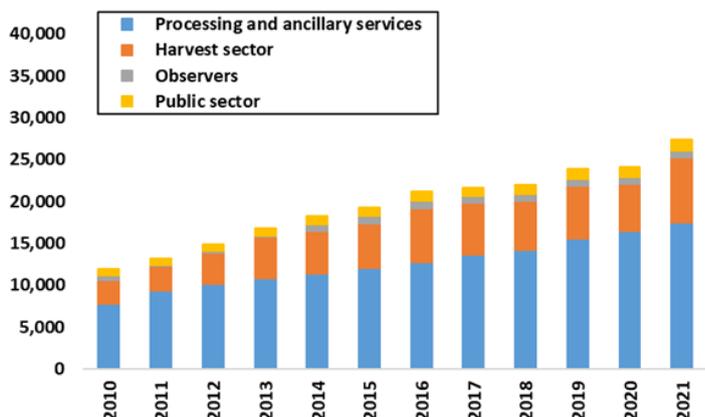
License and access fee revenue



Goal 3 – Employment

Total employment related to tuna fisheries in FFA member countries for 2021 was estimated at 27,442, up 42% from 2015 and 14% from the previous year. Since 2010, employment has increased steadily with the onshore processing sector contribution most to this increase and accounting for around 60–70% of all employment in the tuna fisheries. Around 17,400 people were employed in the onshore processing sector in 2021, a rise of 6% from the previous year. After an 11% decrease in employment in 2020 as a result of COVID-19 mitigation measures' effects on domestic longline operations and related supply chains, employment in the harvest sector increased to 7,826 in 2021. Observers and the

Employment by sector



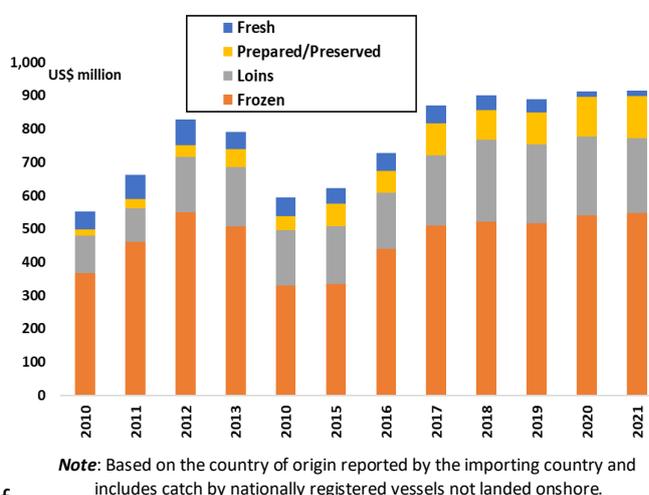
public sector contribute around 3% and 5% of total employment respectively. About 73% of all tuna processed or handled onshore 2021 occurred in PNG, which employs the majority of persons working in the sector. In the same year, around 13% of processing employment was in the Solomon Islands and 10% in Fiji. The Taskforce report also noted the need to ensure decent working conditions for those employed in the fisheries sectors. In a groundbreaking step, Regional Minimum Terms and Conditions (MTCs) of employment for vessel crews were agreed by FFC Ministers in 2019, with Members to make best endeavours to give domestic effect to the new conditions by 1 January 2020. To date three Members have completed implementation through regulations or amendments to licensing conditions, while other members have this work underway. Covid related restrictions have undoubtedly impacted on this work at national level. Work is also being done at WCPFC to finalise a Conservation and Management Measure on crew safety and labour standards for fishing crew.

Trade and Investment

The Taskforce proposed new initiatives to stimulate trade and investment in tuna products. It suggested that growth in export values could be used to measure progress with a goal of a 25% increase over 5 years.

Estimates of **export values** from FFA member countries are based on import data from the major export destinations for tuna from the region (Thailand, US, EU and Japan). Between 2015 and 2021 the value of exports to the four major markets increased 45% to reach \$915 million with the target of a 25% increase set by the Taskforce significantly exceeded. The value of exports to these markets in 2021 (\$915 million) remained at around 2020 levels.

However, the story across each of the product types is mixed. Fresh exports, which have been on a declining trend over the last decade, collapsed in 2020, falling by nearly two thirds to just \$17 million. This initially occurred as a result of disruptions to supply chains as COVID and associated mitigation measures took effect. It appears that the reduction in fresh volumes has persisted into 2021 as vessels were reconfigured toward supplying frozen rather than fresh product. By contrast, exports of processed product, that is prepared/preserved (typically canned) and loins, have continued to increase over the past decade with canned tuna exports quadrupling and loin exports increasing by nearly 130% respectively. In 2021 exports of loins were worth \$225 million and exports of canned tuna \$127 million, 31% and 59% higher than in 2015 respectively.



Goal 4 – Food security

The Roadmap laid out a challenge to ensure an additional 40,000mt of tuna will be available for regional consumption in 10 years. However, due to a lack of baseline data, it is difficult to assess the degree to which this has been achieved. Given this, a number of studies have been conducted in recent years in order to assess how much tuna enters local markets for domestic consumption. These studies covered three areas:

- Canned (mainly dark meat) tuna which is produced by local and overseas canneries and supplied to Pacific Island Countries. This study indicated the importance of canned tuna to local markets in some members, with annual consumption in the region's three largest countries ranging from 2,600 tonnes (Fiji), through to 3,000 tonnes (Solomon Islands) and 3,300 tonnes (PNG) – equivalent to 22,000 tonnes of whole tuna in total.
- Landings from local and locally based purse seine, pole and line, and longline fishing vessels which are provided for local consumption, rather than being processed and/or exported; as well as fresh and frozen fish products supplied from processing plants. This study estimated that in 2016 around 29,000mt of the catch of locally based fleets in the region entered local markets, which is equivalent to only 0.8 % of the total catch taken by these vessels. However, for some FFA members a significant proportion of the catch of

locally based commercial fleets is supplied to local markets. For example, in 2016, this proportion was estimated at 95% for the Cook Islands, 33% for Samoa, 25% for Tonga, and 8% for Palau.

- c) Purse seine and longline by-catch landed from foreign vessels during transshipment operations. This study estimated potential landing volumes from transshipment operations in 2016 of at least 10,000mt across the region, and possibly considerably more. However, it was noted that only a small proportion, around 3,300mt, of the potentially available resource was entering local markets. The study further noted that this potential food resource is temporally variable in each country, as transshipment location is significantly influenced by the El Niño Southern Oscillation (ENSO) cycle. It also found the high volumes associated with transshipment have the potential to overwhelm local supply chains and compete with artisanal and locally-based commercial fisheries if not well managed.

A study aimed at providing Members with a detailed analysis of potential policy options with regard to increasing the contribution of tuna fisheries to national food security and the applicability of these to their circumstances was recently (October 2022) provided to Members for their consideration. A follow up program, under which interested Members can obtain support from the FFA Secretariat to develop and implement appropriate policies and programs identified in the study, is currently being developed.

National level economic and development indicators

The table below provides a summary of average annual outcomes over the period 2019-21 of a number of key economic and development indicators for individual FFA members, highlighting both the diverse nature of their tuna resource endowments and the benefits they derive from the fishery.

	Value in US\$ million				Processed or handled onshore (mt)	Employment
	Tuna catch in national waters	Tuna catch by national fleet	Tuna Exports	Tuna fishery access and licences fees		
Cook Is.	48	12	2	9	130	88
Fiji	40	63	94	2	41,744	3,313
FSM	280	284	142	71	39,656	1,166
Kiribati	701	322	81	129	1,213	961
Marshall Is.	92	147	54	31	13,450	1,058
Nauru	192	119	72	46	0	346
Niue	1	0	0	1	0	4
Palau	15	6	5	8	0	43
PNG	713	325	241	107	111,942	13,151
Samoa	7	12	10	1	4,381	339
Solomon Is.	193	112	80	34	28,052	3,425
Tokelau	21	0	0	15	0	7
Tonga	10	2	0	2	2,525	296
Tuvalu	153	23	12	27	0	118
Vanuatu	21	114	100	2	1,603	864
Total	2,487	1,542	893	484	244,696	25,180

Notes: a. Based on import data from the 4 major export destinations for tuna from the region (EU, Japan, Thailand and USA) and exports to other countries provided in the UN Comtrade database. Includes catch by nationally registered vessels that may not have been landed onshore.

This report was produced by the Forum Fisheries Agency (FFA) in collaboration with the Pacific Community (SPC).