Tuna Fishery Report Card 2021

Introduction

In 2015 FFA Fisheries Ministers 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. The Taskforce also 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 in the Roadmap and other economic indicators specified 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.

Overview

Significant progress has been made towards the achievement of many of the targets outlined in the Roadmap and by the Taskforce. For example, over the five-year period 2015 to 2020 the share of the catch value taken by FFA Members' fleets in FFA Members' national waters increased by 39% (from 38% to 53% of the total value) and export values increased by 47%. However, COVID and the associated mitigation measures impacted significantly on FFA members' longline fleets in 2020 with their tuna catch down 29% and fresh tuna exports falling by nearly two thirds. Onshore processing volumes have also seen a significant increase over the period 2015 to 2020, rising by just under 50%. Importantly, 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.

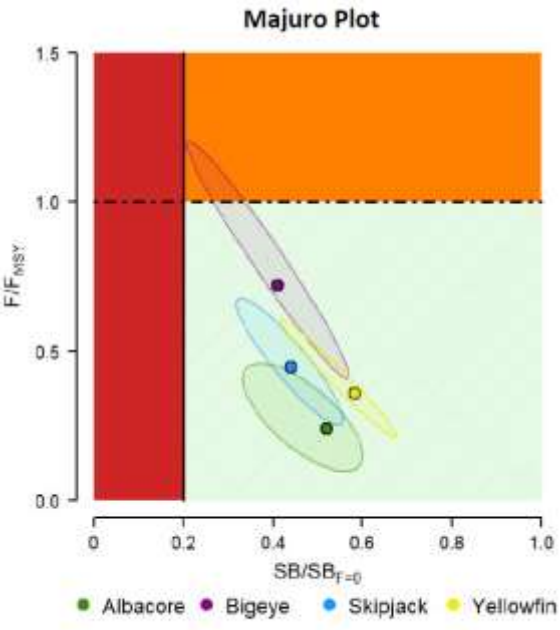
Progress against other targets has been slower than desired. For example, the Roadmap envisaged that target reference points (TRPs) would be set for all four key stocks within three years. Six years on, an interim TRP is only in place for South Pacific albacore, a TRP that was developed with economic considerations in mind based on expected catch rates by 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. While tuna related employment increased by around 4,850 (25%) in the 5 years to 2020 the Taskforce target of an increase of 9,000 over 5 years has not been achieved while the rate of increase is unlikely to see the Roadmap goal of an increase in employment of 18,000 over 10 years achieved. In addition, revenue from access fees increased 8% over the 5 years to 2020 with the rapid growth between 2011 and 2015 slowing as purse seine access fees became better aligned with the value of access to that fishery. 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, this report provides an overview of recent and upcoming work relevant to the achievement of this Roadmap target.

It is also important to note this Report Card reports on trends across all FFA Members combined. 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. An example of this is government revenue from license and access fees where significant increases have been achieved as a result of the success of the PNA's purse seine Vessel Day Scheme

(VDS), which has driven significant increases in the rate of return achieved from the purse seine fishery for those Members. By contrast, returns in the longline fishery remain stagnant with current management not yet restricting effort to levels necessary to increase profitability and associated improvements in economic returns.

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, the value of which 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.



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

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. 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.

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 there is variability in economic performance as prices, costs and catch rates fluctuate, relatively good conditions tend to be followed by significant increases in catch and effort which, in turn, lead to declines in catch rates. 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.

Other commercial species

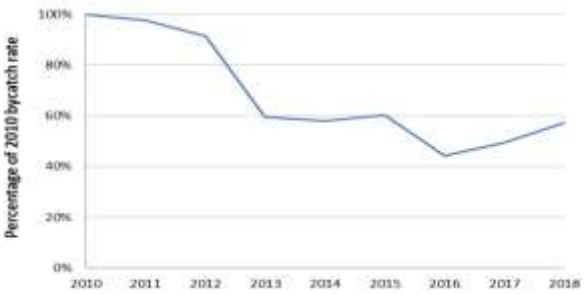
Other commercially important stocks that have been assessed and that require further management include **southwest Pacific striped marlin** and **western and central North Pacific striped marlin.**

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.

Bycatch

Median (average) longline (excluding longline fisheries that target sharks) bycatch rates of sharks in FFA members' EEZs tended to decline over the period 2010 to 2016 (see graph at right), but subsequently increased through to 2018. The large decrease from 2012 to 2013 is influenced by a substantial (50%) reduction in estimated shallow set longline effort, and also a reduction in estimated catch rates for some species (e.g. silky shark). Observed captures of marine mammals, seabirds and sea turtles are insufficient to explore temporal trends.

Shark bycatch rates



Goal 2 – Value[1]

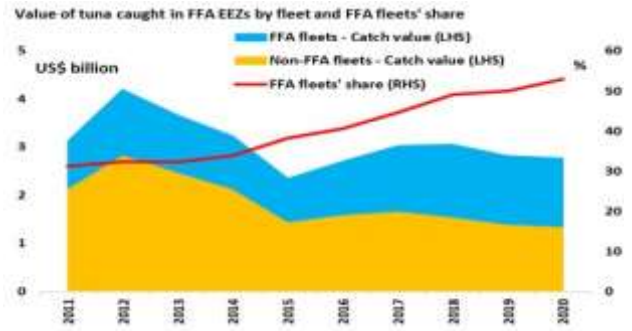
While the Roadmap initially called for a doubling of the value of the region's tuna catch by 2024 through increases in prices rather than volumes, the Taskforce specified three target areas: the value of foreign access; the value of fishing to GDP; and the proportion of catch value taken by FFA Island 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.

Government revenues from license and access fee revenue declined by 5% to $482 million in 2020. This follows a period in which revenues steadied, revenues between 2017 and 2019 were between $490 and $500 million[2], following the rapid growth seen over the decade prior to 2017. The decline in 2020 was driven by significant reductions in revenues from the purse seine fisheries of Kiribati and the Cook Islands as effort shifted westward due to the then prevailing La Nina conditions and, reportedly in the case of Kiribati, COVID-19 mitigation measures. While the 5-year 25% growth target from 2015 levels was not achieved the resilience of the purse seine fishery and the access fee revenue stream was demonstrated in 2020 with only a relatively small decline seen despite low fish prices and significant operational and supply chain distributions resulting from the implementation of COVID-19 mitigation measures.

License and access fee revenue

The share of the catch value taken by FFA fleets (includes flagged and chartered vessels) across the Western and Central Pacific Fisheries Commission Convention Area (WCPFC-CA) and within the waters of FFA Members has increased significantly in recent year, as vessels have reflagged to FFA member fleets. Across the WCPFC-CA, the share of the catch value increased from 24% in 2015 to 31% in 2020. Within FFA members' national waters it increased from 38% in 2015 to 53% in 2020, equivalent to a 39% increase in the overall share.

Value of tuna caught in FFA EEZs by fleet and FFA fleets' share



For the longline fishery, in 2020 the FFA fleets' share within FFA national waters fell from 59% in 2019 (the highest level recorded since at least 1997) to 48% (only the second time since 2015 that is has been below 50%) reflecting the impact of COVID and related mitigation measures on locally based

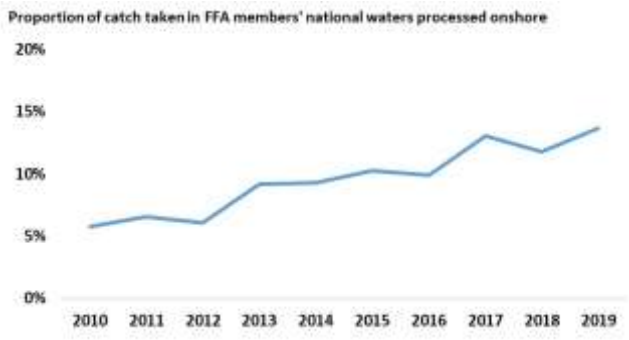
[1] In addition to the indicators presented in this section, the Taskforce also set a target of a "25% increase in value of fishing to GDP" over 5 years. Earlier editions of the Report Card have provided estimates of the contribution to tuna harvest sector to GDP (value added). However, the rapid growth 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.

[2] The 2019 estimate has been revised down from $550 million as a result of revisions to estimates provided by members.

longline operations. For the purse seine fishery in 2020 the FFA fleets' share was 53% within FFA members' national waters and 44% across the WCPFC-CA continuing the steady increase observed over the past decade.

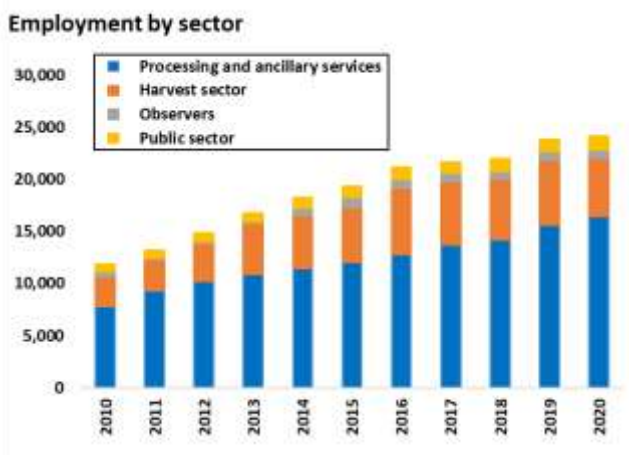
Over 2015 to 2020 **onshore processing volumes** rose by just under 50% to around 220,000mt. This increase was driven by significant increases in processing volumes in PNG, Solomon Islands, FSM and the Marshall Islands and sees the continuation of the upward trend in the proportion of the catch taken in FFA members' waters being processed onshore which reached its highest level at 14% in 2020.

Between 2018 and 2020 processing volumes in Fiji declined significant which, it is understood, resulted from constraints on PAFCOs ability to procure fish for their operation and the impact of COVID-19 on exports of fresh tuna. Significant recent increases occurred in PNG likely driven by the rebate scheme introduced in 2018. Under the rebate canning/loining operations are provided rebates on processed volumes rather than, as previously, vessel operators being provided discounts on VDS days. There was also a significant increase in FSM driven by an increase in product being sorted and packed for export.



Goal 3 – Employment

Total employment related to tuna fisheries in FFA member countries for 2020 is estimated at 24,145 an increase of 1% on the previous year and 25% since 2015. This increase was driven by a 6% increase in employment in the processing sector resulting primarily from an increase in PNG. The onshore processing sector makes the largest contribution to employment with about 65% being from this sector. Total employment in the onshore processing sector in 2020 was estimated at 16,457. Employment in the harvest sector fell by over 10% driven by the impact of COVID-19 mitigation measures on domestic longline operations and associated supply chains. With many employees facing reduced hours and/or periodic layoffs the actual impact on earnings by workers in this sector would likely be greater than indicated by the change in these employment numbers. Similarly, with the suspension of the requirement for 100% coverage by observers in the purse seine fishery while many observers remained on the books of the various national and regional observer programs the amount of work undertaken by observers, and their incomes, would have been significantly reduced.



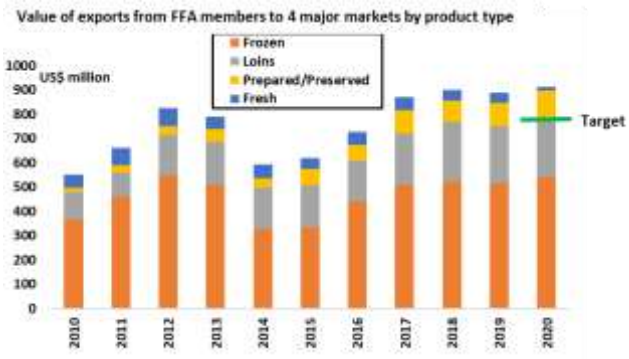
The Taskforce report also noted the need to ensure decent working conditions for those employed in the fisheries sectors. In a ground-breaking step, Regional Minimum Terms and Conditions (MTCs) of employment for vessel crews were agreed by FFC Ministers in 2019, with Members to make best endeavours to 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.

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). With sustained growth in recent years exports in 2020, at $928 million, were estimated to be 47% higher than in 2015 with the 25% target increase achieved.

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 occurred as a result of a fall in the demand for sashimi and disruptions to, and increases in the cost, of airfreight as COVID and associated mitigation measures took effect. In 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 140% respectively. In 2020 exports of loins were worth $237 million up 36% since 2015 and exports of canned tuna were worth $120 million up 79% since 2015.



Note: Based on the country of origin reported by the importing country and includes catch by nationally registered vessels not landed onshore.

Goal 4 – Food security

The Roadmap lays out a challenge to ensure an additional 40,000 tonnes 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:

a) 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.

b) 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 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 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 of the potentially available resource was entering. 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 will be undertaken in the 1st half of 2022. It is also intended that a follow up program under which interested Members can obtain support from the Secretariat to develop and implement appropriate policies and programs is currently being developed.

National level economic and development indicators

The table below provides a summary of average annual outcomes over the period 2018-20 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				Onshore processing volumes (mt)	Employment
	Tuna catch in national waters	Tuna catch by national fleet	Tuna Exports[a]	Tuna fishery access and licences fees		
Cook Is.	62	14	3	11	248	99
Fiji	44	69	117	2	46,691	3,626
FSM	389	286	116	73	20,954 [b]	559
Kiribati	753	338	92	131	960	992
Marshall Is.	91	145	46	32	12,851	1,043
Nauru	214	65	36	42	0	85
Niue	2	0	0	1	0	4
Palau	28	15	11	9	101,872	0
PNG	680	425	269	106	0	12,274
Samoa	8	13	11	1	5395	313
Solomon Is.	204	128	93	34	25,136	3,356
Tokelau	39	0	0	13	0	7
Tonga	10	2	1	2	1,982	283
Tuvalu	172	16	14	30	0	125
Vanuatu	30	104	91	2	379	560
Total	**2,725**	**1,620**	**892**	**489**	**216,468**	**22,765**

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. **b.** For 2016-19.

This report was produced by the Forum Fisheries Agency (FFA) in collaboration with the Pacific Community (SPC). Estimates for 2020, where provided, are preliminary.