



## *Tuna Fishery Report Card 2020*

### Introduction

In 2015 FFA Fisheries Ministers adopted the **Regional Roadmap for Sustainable Pacific Fisheries** setting out their 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 4 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 four-year period 2015 to 2019, government revenue from license and access fees increased 21%, the share of the catch value taken by FFA Members' fleets across the WCPFC Convention Area increased 23% and across FFA Members' national waters by 29% and the value of exports rose 53%.

Progress against other targets has been slower than desired. For example, the Roadmap envisaged that target reference points (TRPs) would have been set for all 4 key stocks within 3 years. Five years on an interim TRP is only in place for albacore with the previously adopted interim TRP for skipjack no longer in place, although discussions on an appropriate TRP continue. While employment in the tuna sector has increased by around 4,600 in the 4 years to 2019, the rate of increase is unlikely to see the Roadmap goal of an increase in employment of 18,000 over 10 years, or the Taskforce target of an increase of 9,000 over 5 years achieved. 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 in this area relevant to achievement of the 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 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 in for albacore only, 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 is unlikely that they will be adopted by the WCPFC until its 2021 meeting at the earliest.

### 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 (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.

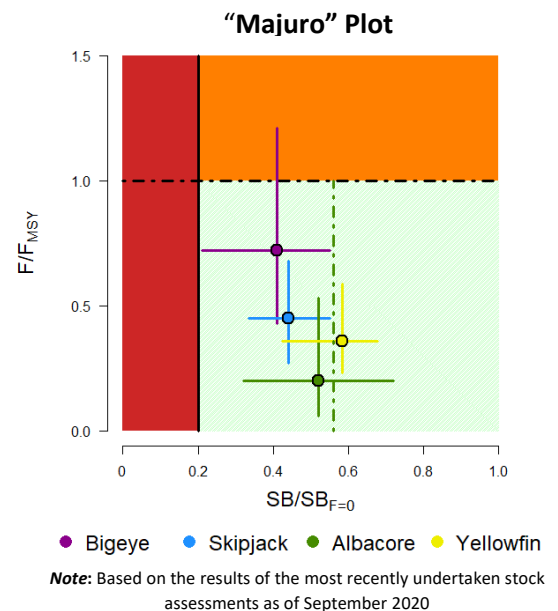
The **South Pacific albacore** stock is currently estimated to be below the adopted interim Target Reference Point and is predicted to decline further unless significant reductions in catch are achieved. Based on the most recent stock assessment modelling, catch reductions of around 19% are required to simply maintain the stock at current levels catch, while reductions of around 25% will be needed to restore the stock to levels associated with the agreed 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. As such, it is vital that management measures are put in place that restrict catch and allow for sustained, economically viable, catch rates.

For the **skipjack tuna stock**, the improved understanding of the stock’s biology, and perception of 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 with when first adopted. If WCPFC adopted the updated TRP level for skipjack as calculated by its Scientific Services Provider using the same approach that informed the original interim TRP level, the most recent stock estimate would be at the new TRP.

### Other commercial species

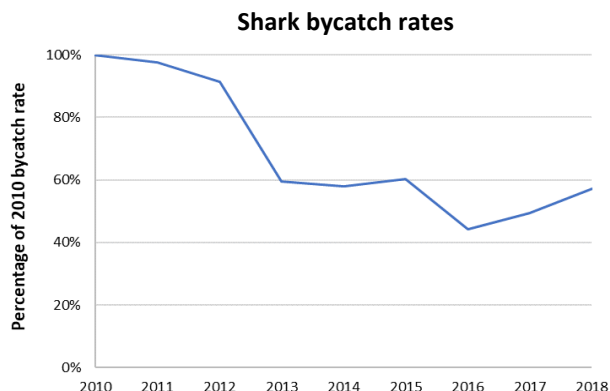
Other commercially important stocks that have been assessed and that require further management include **southwest Pacific striped marlin** and **western and central North Pacific striped marlin**.

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

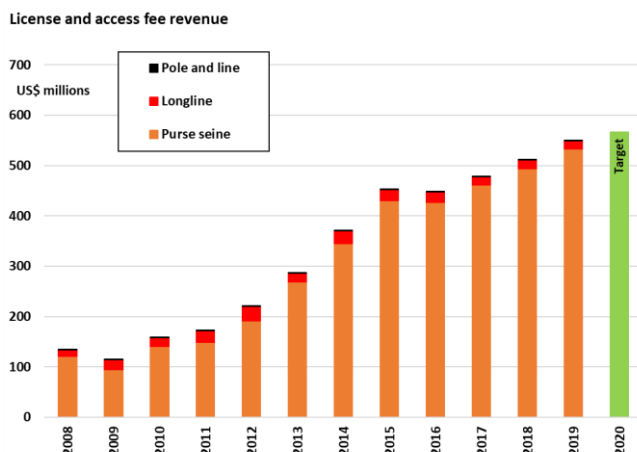
Median (average) longline (excluding longline fisheries that target sharks) bycatch rates of sharks in FFA members' EEZs tended to decline over the period 2010 to 2016 (see graph at right), but subsequently increased through to 2018. The large decrease from 2012 to 2013 is influenced by a substantial (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.



## Goal 2 – Value<sup>1</sup>

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 reached a new record of \$550 million in 2019**, a year on year increase of 7.5%. Total revenue increased by around 21% between 2015 and 2019. Given the potential impacts of low market prices for purse seine caught tuna in the last quarter of 2019, and the COVID-19 pandemic in 2020, it is difficult to assess whether a 25% increase on 2015 levels will be achieved in 2020. Nonetheless, the rapid growth in access fees since 2011 has been extremely impressive, with an average annual growth rate of 15.6% between 2011 and 2019 being achieved.



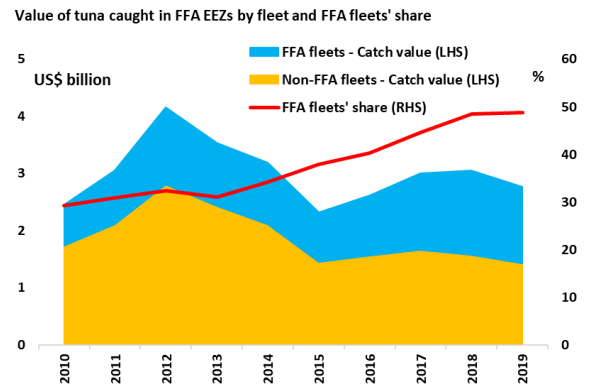
As noted above, this success has been driven by returns from the purse seine fishery, with access revenues from the longline fishery stagnant at best. The increase in purse seine access fee revenue has been achieved not through an increase in the value of the catch taken by this fleet, but by an increase in the rate of return achieved. In 2011 purse seine access revenue equated to around 6% of the value of the catch taken in members' waters, whereas since 2015 the rate of return has been around or in excess of 20%. By contrast, the rate of return from foreign vessels in the longline fishery is understood to have remained at around 5-6% of the value of the catch. Sustained increases in access fee revenues from the longline fisheries will likely only be achieved by increasing the rate of return earned which requires improvements in the management of the fishery and, in particular, the better specification of zone-based limits for fishing within EEZs and the high seas.

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**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 years. Across the WCPFC-CA it rose from 24% in 2015 to 29% in 2019 (equivalent to a 23% rise in the overall share) to reach a total value of \$1.7 billion. Within FFA members' national waters, the share taken by FFA fleets rose from around 30% in the early 2010s to 38% in 2015 and then to 49% in 2018, where it remained in 2019. The increase from 2015 to 2019 represents an increase of 29%.

<sup>1</sup> 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. Previous 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 centre of interest of these vessels, has led to a need to review the previous approach used and the estimates obtained. This review is currently being undertaken and, as such, estimates for this indicator are not currently available.

For the longline fishery in 2019 the FFA fleets' share was 63% within FFA national waters (the highest level recorded since at least 1997) and 25% across the WCPFC-CA (the second highest level recorded). While there is significant variability between the FFA longline fleets' share, as vessels join and leave various national fleets, there has been a general upward trend over the past decade. For the purse seine fishery in 2019 the FFA fleets' share was 46% within FFA national waters and 42% across the WCPFC-CA with a steady increase observed over the past decade, and with the FFA fleets' share, in both these areas, now almost double that seen in 2010.

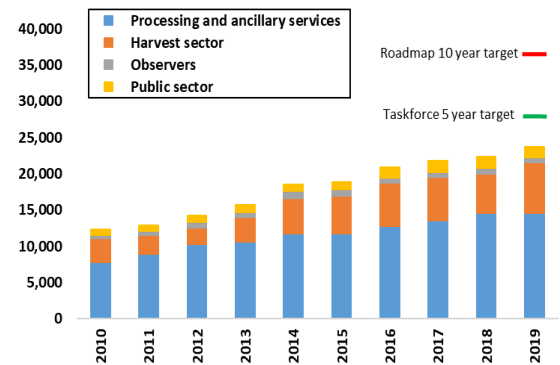


**Onshore processing volumes** are estimated to have increased by 27% between 2015 and 2018 to be around 186,000mt. This increase was primarily driven by growth in processing volumes in Fiji and PNG.

### Goal 3 – Employment

Total employment in tuna fisheries and related sectors in FFA Pacific Island members continues to grow, albeit at a slower rate than anticipated under the Roadmap. The Roadmap anticipated an increase of 18,000 jobs over ten years with the Taskforce subsequently setting a goal of an increase of 9,000 over 5 years. In the 4 years to 2019 employment increased by around 4,800 primarily driven by an increase of around 4,600 jobs across the processing and harvest sectors. Given this recent rate of increase and the impact of COVID-19 on the processing sector servicing the fresh tuna market it appears unlikely that the Roadmap goal of an increase in employment of 18,000 over 10 years or the Taskforce target of an increase of 9,000 over 5 years will be achieved.

Employment by sector



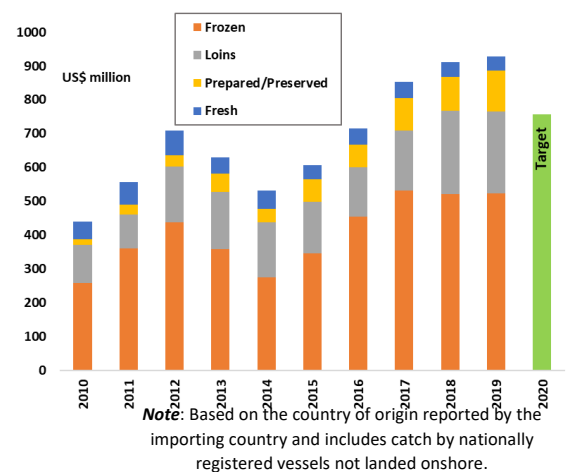
The Taskforce report also noted the need to ensure decent working conditions for those employed in the fisheries sectors. In a ground-breaking step, Regional Minimum Terms and Conditions (MTCs) of employment for vessel crews were agreed by FFC Ministers in 2019, with Members to make best endeavours to give domestic effect to the new conditions by 1 January 2020. Three Members have already completed implementation through regulations or amendments to licensing conditions, while draft policies and regulations have been prepared for two other Members with others to follow in coming months.

### Trade and Investment

The **Taskforce** proposed new initiatives to stimulate trade in tuna products and investment. 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, total exports in 2019, at \$928 million, were estimated to be 53% higher than in 2015. Export values have been on an upward trend across all product forms except fresh tuna which has been relatively flat. Values of prepared/preserved (typically canned) tuna exports increased by 82% between 2015 and 2019 to reach \$122 million while loin exports increased 61% over the same period to \$243 million.

Value of exports from FFA members to 4 major markets by product type



Impacts of COVID-19 on tuna exports in 2020 to date have been most severely felt by longline vessels and processors supplying the fresh tuna market as a result of reduced airfreight capacity and a significant increase in airfreight costs.

## 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. Nonetheless, there have been a number of initiatives to increase supplies of tuna to local markets. These include increasing landings from commercial tuna fleets, with several countries requiring licensed vessels to land to onshore bases, with by-catch going to the local market. A 2019 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. In addition, many countries have programmes to increase tuna catches by artisanal fleets (mainly by provision of anchored Fish Aggregating Devices (FADs)). Catch of tuna and tuna-like species by artisanal fleets was estimated in 2016 to be around 17,500mt. Another recent study has shown the importance of canned tuna to local markets, 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. Looking ahead, the FFA Secretariat proposes to further advance work on quantifying the contribution of tuna fisheries to food security by investigating other avenues, including how much tuna enters local markets as a result of transshipment activity, and collating the results from previous studies and available data to obtain an overall estimate. An additional study to investigate potential ways in which tuna fisheries and associated industries can increase their contribution to food security will also be undertaken.

### National level economic and development indicators

The table below provides a summary of average annual outcomes over the period 2017-19 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) <sup>b</sup>	Employment
	Tuna catch in national waters	Tuna catch by national fleet	Tuna Exports <sup>a</sup>	Tuna fishery access and licences fees		
<b>Cook Is.</b>	72	17	4	15	362	89
<b>Fiji</b>	47	74	142	2	50,297	4,078
<b>FSM</b>	407	250	71	70	5,331	1,105
<b>Kiribati</b>	824	317	107	121	373	1,114
<b>Marshall Is.</b>	80	146	38	32	8,447	899
<b>Nauru</b>	200	17	0	32	0	85
<b>Niue</b>	1.4	0	1	1	0	4
<b>Palau</b>	61	22	19	8	609	94
<b>PNG</b>	677	517	296	140	79,106	11,371
<b>Samoa</b>	7	10	10	1	6,031	288
<b>Solomon Is.</b>	272	134	76	42	21,250	3,224
<b>Tokelau</b>	52	0	0	14	0	6
<b>Tonga</b>	9	2	2	1	1,446	285
<b>Tuvalu</b>	162	15	12	28	0	91
<b>Vanuatu</b>	36	84	75	3	0	69
<b>Total</b>	<b>2,907</b>	<b>1,605</b>	<b>850</b>	<b>510</b>	<b>173,252</b>	<b>22,803</b>

**Notes:** a. For 2016-18. 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 2016-18.

This report was produced by the Forum Fisheries Agency (FFA) in collaboration with the Pacific Community (SPC). Estimates for 2019, where provided, are preliminary.