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Economic and Development Indicators and Statistics:

Tuna Fisheries of the Western and Central Pacific Ocean

2020

Thomas Ruaia, Steve Gu'urau and Chris Reid

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Contents

Economic and Development Indicators Report

Control of the major fisheries

The WCPO continues to provide the majority of the global catch of albacore, bigeye, skipjack and yellowfin tunas accounting for between 53% and 58% over the past decade. In 2019 the total WCPO catch was estimated at 2.98 million metric tonnes, the highest on record. This represented 56% of the global catch of 5.3 million metric tonnes with the Indian Ocean (20%), Atlantic and Eastern Pacific Ocean respectively at 10% and 14% of global production. The WCPO catch in 2019 increased by 7% from the previous year driven by a 7% increase in the purse seine catch.

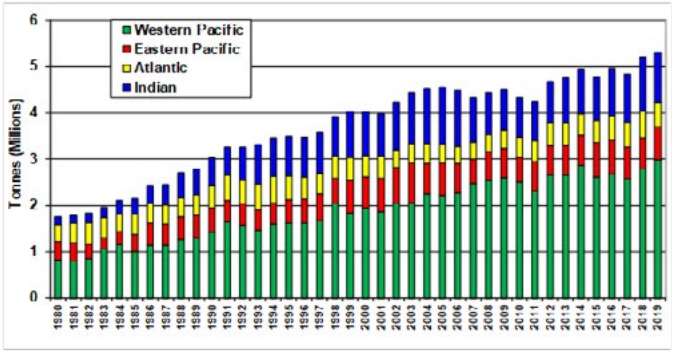


Figure 1. Global tuna production by Ocean
Source: WCPO and EPO from SPC (2020), Atlantic Ocean from ICCAT (www.iccat.int/atl.asp); Indian Ocean from IOTC (www.iotc.org/English/data.php)

Purse seine

The purse seine catch dominates global tuna catches. The WCPO purse seine fishery, in turn, produces the majority of the global purse seine catch, contributing between 57% and 65% over the period 2009-19. The purse seine fishery is also the dominant WCPO fishery accounting for between 66% and 71% of total catch in this ocean between 2009 and 2019. In 2019 the WCPO purse seine catch was estimated to be around 2 million metric tonnes, 69% of the total catch from this ocean. In value terms the proportion associated with the purse seine fishery is lower due to the lower unit value of the catch.

The WCPO purse seine fishery in 2019 was valued at $3.02 billion, equivalent to 52% of the total value of the WCPO tuna catch of $5.76 billion and 3% higher than its 5-year (2014-2019) average. However, it was around 25% than that seen in 2012 and 2013 when the value of the purse seine fishery catch was at least $4 billion as a result of high prices for raw material for canning.[1]

The WCPO purse seine fishery catch is predominately taken in the waters of FFA member countries which accounted for between 66% and 87% of the WCPO purse seine catch (Figure 2) over the period 2009 to 2019. A significant increase in proportion of the purse seine catch taken in the FFA national waters was seen between 2009 and 2010 as a result of the closure of the western high seas pockets. This high proportion of catch continued through to 2014 with at least 80% of the purse seine catch taken in FFA waters. However, this then declined remaining below 80% ever since. In 2014 and 2015, catch in the high seas increase by over 70%. This was likely, at least in part, in response to the increasing cost of access to PNA EEZs under the Vessel Day Scheme. In 2019, catch in the high seas was around to 270,000mt, a 39% increase from the previous year while the purse seine catch in the FFA member countries national waters was around 1.5 million metric

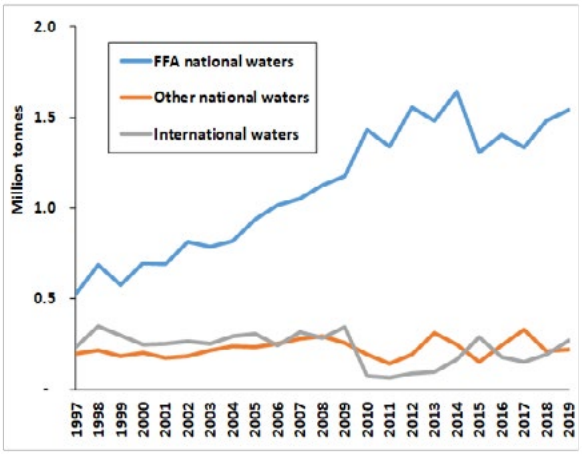


Figure 2. WCPO purse seine catch by area
Source: SPC (2020)

[1] Catch values reflect "delivered" values, that is, the value of the product when it enters the country it is to be processed or consumed in. For example, in the purse seine fishery the values are based on Thai import prices (c&f) and Japanese (Yaizu) ex-vessel prices.

tonnes, 76% of the total purse seine catch. The 2019 purse seine catch in FFA members' waters is valued at around $2.3 billion.

The number of purse seine vessels flagged or chartered to an FFA member country fleet (referred to as the FFA national purse seine fleet) was 133 in 2019, an increase of 9 vessels from 2018 and one higher than in 2016 when the fleets' size was at its previous peak. In the last five years, while some fleets, notably those of FSM, Kiribati, Marshall Islands and Solomon Islands, have maintained or increased their size other fleets, such as those from PNG and Vanuatu have seen a decline. In 2018, Nauru, for the first time under a joint venture (JV) arrangement, became a "flag State" with two purse seine vessels registered under its flag in 2018[2] and nine in 2019[3].

The FFA purse seine national fleet's share of the WCPO purse seine catch in 2019 was around 862,000mt valued at around $1.3 billion. This catch represents about 42% of the total WCPO purse seine catch, the highest share on record.

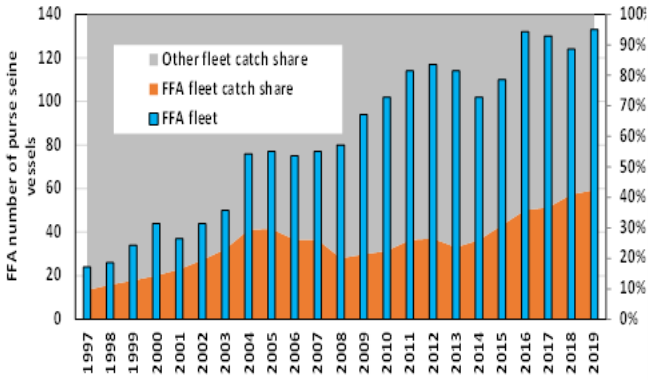


Figure 3: FFA national purse seine fleet and relative catch

Longline

The WCPO longline fishery contribute between 44% and 49% of the global longline catch of albacore, bigeye and yellowfin tunas over the last decade (2009-2019). The longline catch in the WCPO accounted for around 9% of the total WCPO catch in 2019 and its contribution since 1997 has continue to decline. The ongoing decline in the proportion of the longline catch is a result of the expansion in purse catches. In 2019 there was a small increase in the WCPO longline catch to around 260,000mt, however, its contribution declined marginally due to a significant increase in the purse seine catch.

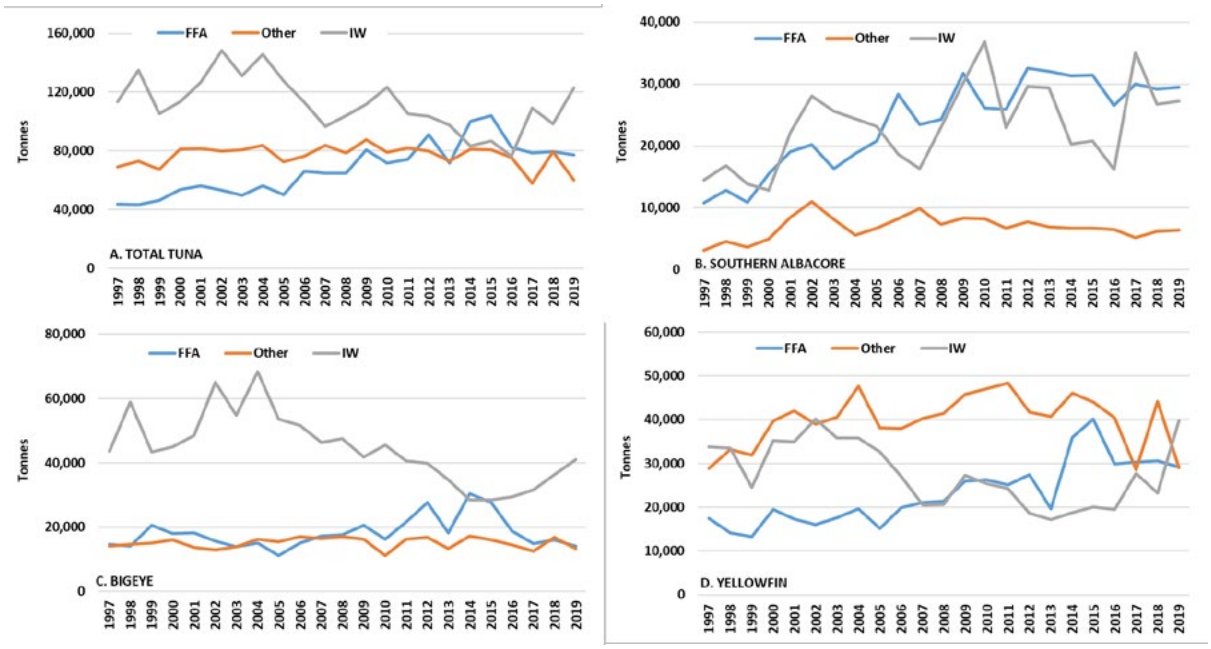


Figure 4: WCPO Longline tuna catch by species and area

[2] Nauru Annual Report to the Commission 2019 (www.wcpfc.int/node/42724)

[3] WCPFC Annual Catch and Effort Estimates (ACE) Tables (www.wcpfc.int/ace-by-fleet)

In the waters of FFA member countries longline catch continued its decline in 2019 to be at around 77,500mt 25% lower than in 2015 when record longline catches of around 104,000mt were taken. This continues the reversal of an earlier pattern, seen between 2012 to 2015, when longline vessels shifted fishing activity from international waters to the waters of FFA members. This shift of longline activity back to the high seas since 2016 has seen the proportion of the WCPO longline catch taken in FFA members' waters fall from 38% in 2015 to 30% in 2019 while the proportion of the catch taken on the high seas has risen from 31 to 47% over the same period. (Figure 4).

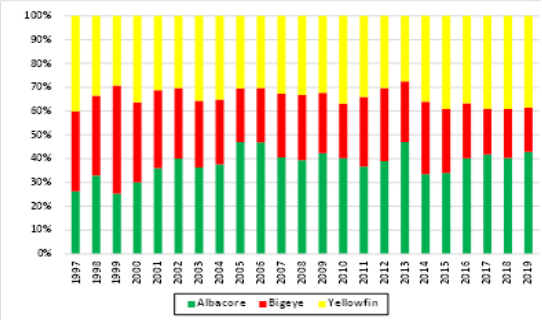


Figure 5: Composition of longline tuna catch in national waters of FFA members

Source: SPC (2020)

Within the national waters of FFA members' species composition of the longline catch has remained reasonable steady since 2017 with yellowfin around 39% of the total tuna catch, albacore around 40-43% and bigeye around 18-20%. (Figure 5)

The number of longline vessels flagged or chartered to an FFA member country fleet (referred to as the FFA national longline fleet) fell significantly in 2016 to 337 vessels from 476 in 2015. This, in part, was driven no charter arrangements in 2016 by the Solomon Islands. While there was an increase in the number of vessels in 2017 to 367 the number remained low with no charter arrangements by the Solomon Islands continuing. While vessel numbers rose in 2018 they fell again in 2019 to be at 364. This fleet caught around 67,000mt of tuna in the WCPO, valued at $397 million. This represents around 26% of the longline tuna catch taken in the WCPO (Figure 6).[4]

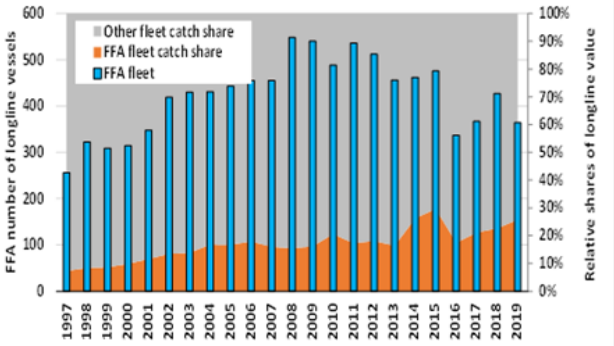


Figure 6: FFA national longline fleet and relative catch share

Source: *WCPFC Science Committee Counrty Annual Reports (various)*

[4] The spikes in the FFA share of catches in 2010, 2014 and 2015 stems from inclusion of chartered vessels' catches in a particular FFA member's fleet's catch. Technically this is correct and therefore should be the case for all years. No immediate attempt is made to make the corrections from lack of specific data to facilitate this. Attribution of vessel and catch – catch not been attributed

Economic conditions in the major fisheries

In this section information is presented on trends in fish prices, fishing costs and catch rates. These factors are the major determinants of the economic conditions prevailing in a fishery. In addition, indices are presented that provide a measure of relative economic conditions over time for the purse seine, tropical longline and southern longline fisheries.[5] The indices are based on relative fish prices, fishing costs and catch rates and do not provide an absolute measure of economic conditions in the fishery in a given year but rather a relative measure between years, that is, for example, how do economic conditions in 2019 compare with those in 2018 are they the same, better or worse? These indicators are designed to provide an indication of the relative economic conditions in the respective fisheries. It is important to note that the indices provide a measure of relative profitability of the fishery and not that of the fleet as access fees are not included. Access fees represent a transfer of the profits generated in the fishery from the fleet to the coastal states that provide access to their EEZs.

The components of the economic condition's indices (that is, costs, fish prices and CPUE), their trends and relative importance in defining the overall trends in each fishery's index are outlined below.[6] The cost and fish price component of the indices are based on changes in their real USD value. As such, all prices that are not specified in US dollars (USD) are converted using the exchange rate prevailing during the relevant time period.[7] In addition, to account for inflation, which results in the real value of a USD changing over time, nominal USD prices (that is, the price at a given point of time) are adjusted using US CPI data to obtain real prices which are expressed in 2019$s.[8]

Fish prices

Prices received by operators (that is, ex-vessel prices) vary depending on the market that the product is destined for and the costs of transporting the product to market, particularly in the longline fisheries. As such, there is no single price that will provide a perfect reflection of trends in the price received by operators for the various species caught. In this report, prices on certain specific markets are used as indicators of the trends in the price received by operators. These are: for the purse seine fishery Thai frozen import prices for skipjack and yellowfin; for the tropical and southern longline fisheries Japanese fresh import prices from Oceania for bigeye and yellowfin and Thai frozen import prices for albacore. The nominal and real price trends for selected major species in each fishery are presented in Figures 7 and 9. Real prices are presented in 2019 USD obtained by adjusting nominal USD prices with US CPI data as previously outlined.

Purse seine prices

Thai frozen skipjack import price is used as the main indicator of market conditions and trends for the purse seine fishery as almost 90% of WCPO catch goes to Thailand for processing into loins and/or canned products. Yellowfin also plays an important contribution to the value of the fishery given its higher unit value although comprising a significantly lower proportion of the catch.

Following their recent peak in 2017 global skipjack prices have been on a downward trend. In 2019 the price of Thai imports (c&f) fell 15% to average $1,399/mt from the previous year. In real terms (that is, adjusting for inflation[9]) 2019 Thai import purse seine caught USD skipjack prices was 6% lower

[5] The southern longline fishery is defined as the longline fishery south of 10°S in the WPCFC-CA and the tropical longline fishery is defined as the longline fishery between 10°N and 10°S in the WPCFC-CA excluding the waters of Indonesia, Philippines and Vietnam.

[6] The indices are calculated as follows:

$$EC_{f,y} = ComPI_{f,y} \times CPUEI_{f,y} - CI_{f,y}{}^{6} \qquad (1)$$

Where $E_{f,y}$ represents the index for economic conditions in fishery f in year y, $C_{f,y}$ represents the composite fish price index in fishery f in year y , $CPUEI_{f,y}$ represents the catch rate index in fishery f in year y and $CI_{f,y}$ represents the fishing cost index in in fishery f in year y.

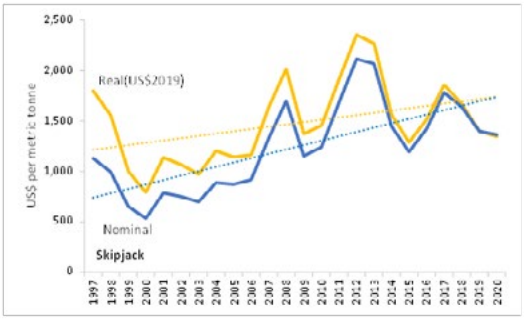
[7] Currency conversions are based on the representative exchange rates provided by the IMF from https://www.imf.org/external/np/fin/ert/GUI/Pages/CountryDataBase.aspx

[8] The CPI measure used is for All Urban Consumers from www.bls.gov/cpi/data.htm

[9] Based on the US CPI as measured by the Bureau of Labor Statistics All Urban Consumers CPI (www.bls.gov/cpi/data.htm)

than their 20-year average. In 2020, Thai import purse seine caught skipjack prices decline further to average $1,364/mt. Bangkok market reports indicate that skipjack prices (4-7.5lbs, c&f) increased significant between late 2019 and the first Quarter of 2020, rising from $900/mt in November 2019 to $1,625 in August 2020, before declining again to be $1,300/mt at the end of December.

In 2019 the Thai import prices (c&f) for yellowfin averaged $1,925/mt, down by 2% from the previous year levels. In real terms the Thai import prices were only 3% higher in 2019 than the 20 year average. Prices over the period to the end of December 2020 are below the levels seen in 2019 with Thai import prices averaging $1,672/mt in 2020 (Figure 7).



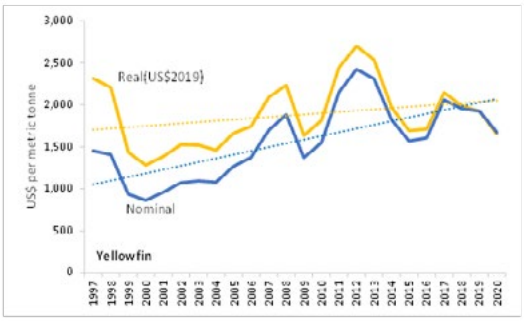
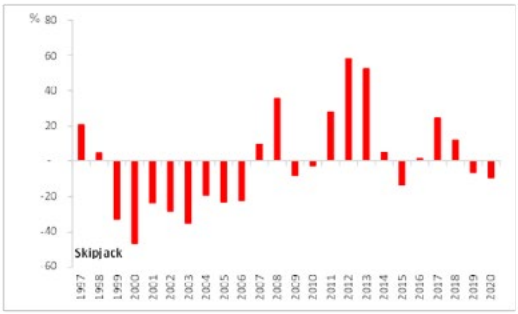


Figure 7. Nominal and real USD prices for Thai imports of frozen whole round skipjack and yellowfin
Note: Dashed lines show linear trends.
2020 prices for period to November 30.
Source: http://www.customs.go.th/



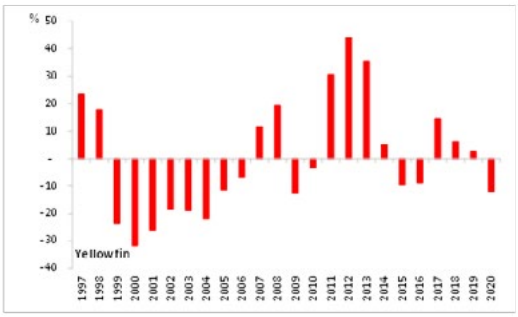


Figure 8. Variation in real USD prices for Thai imports compared with long-term average
Note: 2020 prices for period to November 30.

Southern and Tropical longline prices

Thailand import prices are used as the indicator series as the main use of longline caught albacore is for canning. Thailand is a significant producer of canned albacore and this series is the longest continuous data series available. Figure 9 shows the nominal prices since 1997 have been fluctuated considerably with the peaks and troughs tending to occur at higher levels resulting in nominal prices trending upwards. However, prices in real terms saw a significant fluctuation but the level that they fluctuate around has remained relatively stable over time at around $3,000/mt. Following the significant decline in 2007 (24% below the level average over the period 2000-2019), the albacore real prices have been on an upward trend until in 2012 when real prices at their peak (24% higher). The following year saw the real prices dropped significantly again (13%) lower than the long-term average. From 2014 to 2017, real prices have been relatively stable at around their long-term average. In 2018 real prices began to increase (8%) above the long-term average and a significant increase was seen in 2019 (25% higher than the long-term average) and this is the highest price on record. Following the recent highest peak, the price decline in 2020 but still higher than the long-term average by 9%.

For yellowfin and bigeye, the price of fresh imports from Oceania into Japan was used as the indicator series. Since 1997, the nominal prices for both products follow a similar trend as for albacore and all were trending upwards. Similarly, in real terms, real prices for both products follow a similarly steady trend over time as for albacore although the real bigeye and yellowfin USD prices were trending downwards (Figure 9). Although, the trend was similar to that for albacore, the pattern of variation from the average price over the period differed, in that real USD bigeye and yellowfin prices spent significant periods at lower/higher than average levels while albacore prices fluctuated more frequently between levels lower and higher than average (Figure 10).

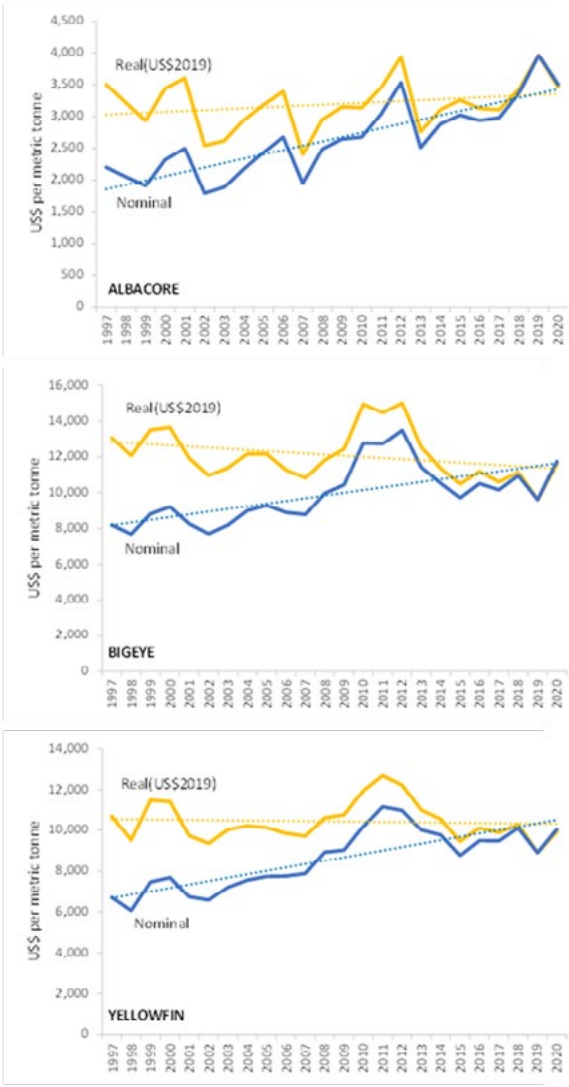


Figure 9: USD real and nominal prices by species for selected market

Note: Dashed lines show linear trends.

Source: www.customs.go.th and www.customs.go.jp/toukei/info/tsdl_e.htm

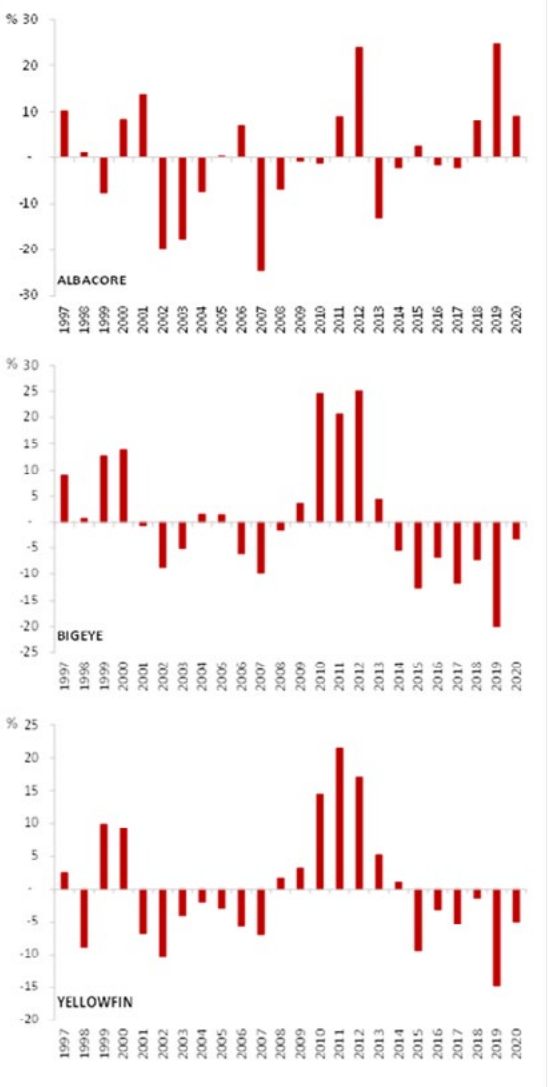


Figure 10: Variations in annual USD real prices by species for selected market

Composite price indices

The real USD price series outlined above are used to construct a composite fish price index for each fishery as shown in Figure 11.[10]

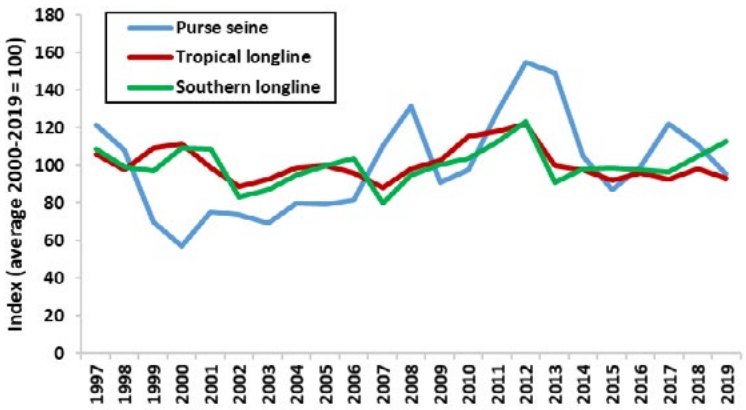


Figure 11. Composite price indices

Catch rates

Catch rates by species for all three fisheries are shown in Figure 12 with the purse seine CPUE expressed in terms of catch per fishing day and the longline fishery in kilograms per hundred hooks. The purse seine total catch rates since 1997 was seen to increase and decrease in some years with catch rate on an upward trend driven by an increase in skipjack catch rates. In contrast, catch rates in the southern longline fishery are on a downward trend and are at the lowest level (16% below the level average over the period 2000-2019) of their historical range since 2011. The total catch rates for the tropical longline fishery have been on a downward trend following a peak in 2000. This decline is driven primarily by a decline in bigeye catch rates which has also resulted in a change in the composition of the catch. Since 2000, bigeye catch account for more than 40% of the total catch until in 2015 to 2017 and 2019, the catch composition changed and was less than 40% with just 35% in 2019, the lowest on record. Bigeye is the highest value species relative to yellowfin and albacore and this change in catch composition also reduces the average unit value of the catch.

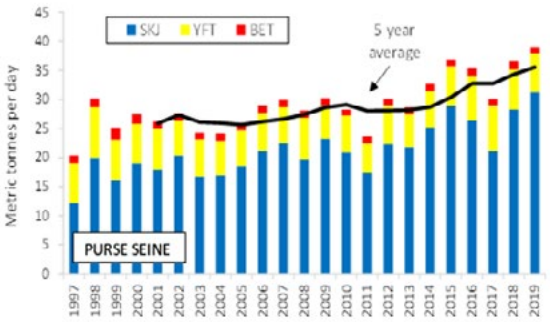
[10] The composite fish price index for each fishery is calculated by first obtaining species specific price indices as follows:

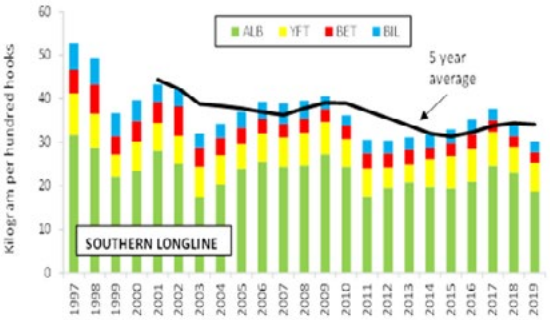
$$PI_{s,y} = \frac{Pr_{s,y}}{AvPr_{s,1997-2014}} \qquad (2)$$

where *PI* is the price index for species *s* in year y, *Pr* is the real price of species *s* in year *y* and *AvPr* the average real price of species *s* over the period 1997 to 2014. The prices index for other species was assumed to be the same as that for albacore and the composite price index specified as:

$$ComPI_{f,y} = 100 + \sum_s \left[\left(PI_{f,s,y} - 100 \right) \times \frac{C_{f,s,y}}{TC_{f,y}} \right] \qquad (3)$$

where *ComPI* is the composite price index for fishery *f* in year y, *PI* is price index for fishery *f* of species *s* in year y, *C* is the catch in fishery *f* of species *s* in year *y* and TC_y the total catch in fishery *f* in year *y*.





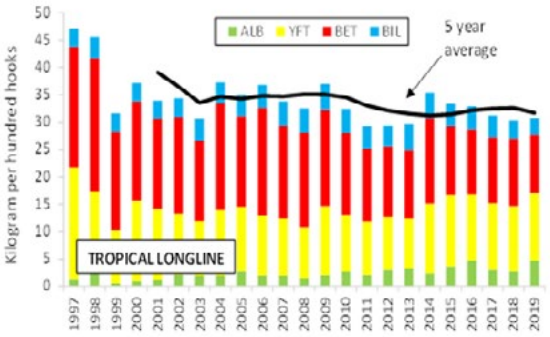
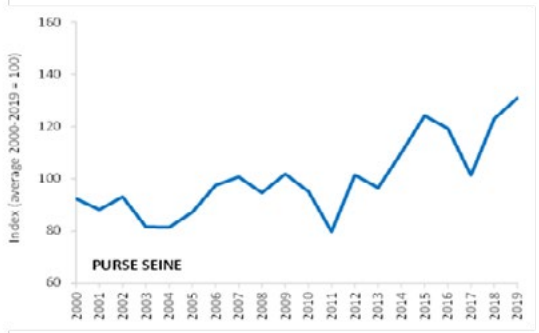
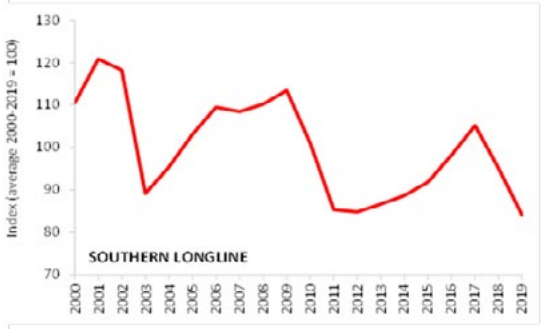


Figure 12: Annual catch rates by species by fishery
Source: SPC





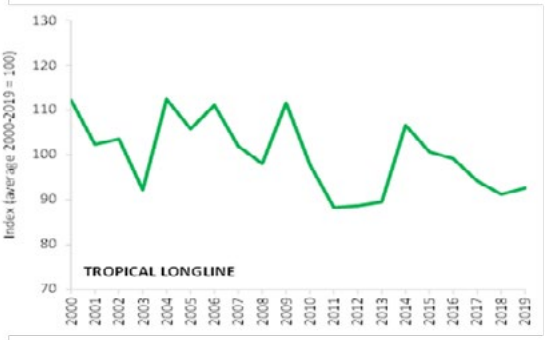


Figure 13: Catch rate indices

Fishing costs

The only available time series in relation to fishing costs is for fuel. This restricts the ability to estimate a fishing cost index as fishing costs are determined by a number of factors besides fuel including wages, provisions and, in longline fisheries, bait. However, fuel is the single most important operational cost across all fleets, subject to the largest fluctuations across all cost categories and, hence, a major determinant in the change in fishing costs over time. Given these factors the approach used in this study is to assume that nominal fishing costs, aside from fuel, have increased at the same rate as the US CPI, that is, that real non-fuel fishing costs have remained constant over time. If this is not the case and real non-fuel costs have risen faster (slower) than the CPI rate the economic conditions index will be lower (higher) in more recent years than would actually be the case.

Fuel costs

The Singapore marine diesel oil (MDO) price is a good indicator of prices paid for fuel by purse seine and longline vessels operating in the region and is used to examine fuel cost trends. Following a significant decline in 2016 with prices to average 392/mt, saw prices begin to rise to 644/mt in 2018. From 2019 to 2020, prices were on a downward trend with prices dropped to 597/mt and declined further in 2020 to average 394/mt (40% below the level average over the period 2000-2019). This is largely driven by the Global Pandemic Covid-19 that has caused an unprecedented socio-economic

crisis and saw a decline in the demand for marine fuels including the Singapore marine diesel oil (MDO)[11] (Figure 14).

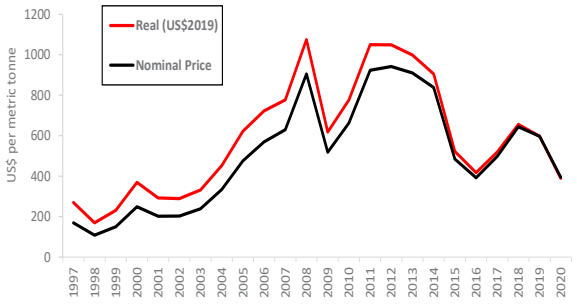


Figure 14: Singapore marine diesel oil (MDO) nominal and real price series

Source: www.bunkerworld.com/prices/port/sg/sin/

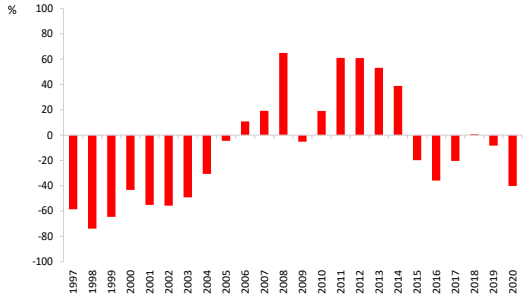


Figure 15: Difference in real USD of Singapore marine diesel oil (MDO) with average price

As previously outlined the fishing cost index uses information on the proportion of total production cost that relate to fuel to develop a constant factor to represent real non-fuel costs (which as previously outlined are assumed to remain constant over time) and then combined with the Singapore MDO real price index series to determine a total real cost index.

Information on fuel cost relative to total production cost over the period were obtained from several sources[12]. For the purse seine fishery, the information obtained had 15% during 1997, 52% in 2006, and 33% in 2009. For the southern albacore fishery 15% in 2001, 40% in 2006 and 27% in 2013. Based on this information a constant factor of 200 was derived for the purse seine fishing cost index while for the southern albacore longline fishery 225. The latter was assumed to be similar to that for the tropical longline fishery. Figure 16 shows the cost indices obtained.

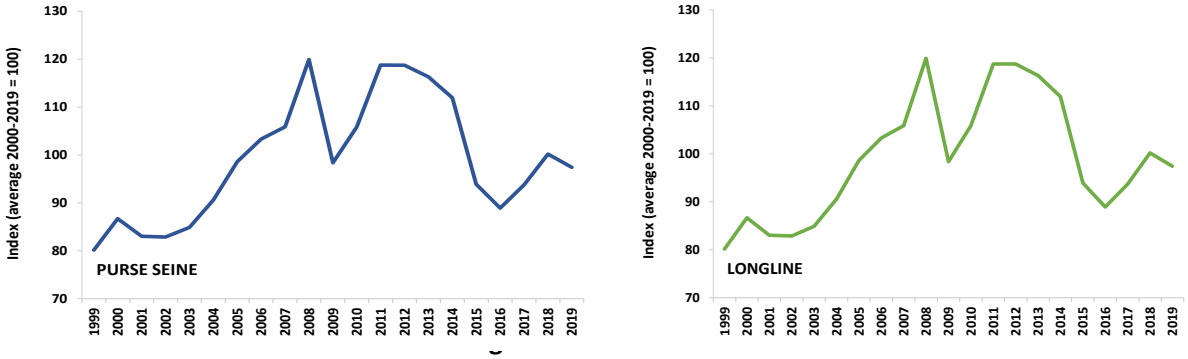


Figure 16: Cost indices

[11]Marine fuels: Price impact of new 2020 low sulfur regulations negated by refineries and Covid-19.

[12] Including Krampe, P. (2006), Rising fuel prices and its impact on the tuna industry, Paper presented to Bangkok Tuna 2006; [12] Arita, S. and Pan, M. (2013), Cost-earnings Study of the American Samoa longline fishery: based on Vessel Operations in 2009, WCPFC-SC9-2013/MI-WP-06, http://www.wcpfc.int/node/4734

Economic conditions indices

Economic conditions indexes (ECI) for the major WCPFC-CA tuna fisheries and the variance against the average for each component indices outlined above are shown in Figure 17. These indexes assess economic conditions in a fishery based on relative fish price, fishing cost (excluding license and access fee payments) and catch rates over the past 20 years (that is, 2000-2019). Together, information from the three components are combined into a single value expressed as an index against the average value over the preceding 20 years, set to 100, and provide a relative measure of changes in economic conditions over time. Values below 100 suggest that the fishery is experiencing below average economic conditions, while values of over 100 show periods in which economic conditions in the fishery are relatively favourable.[13] It is important to note that the indexes relate to the fishery not the vessels operating within it and, as such, while favourable economic conditions may be indicative of the ability of the fishery to generate significant profits they do not indicate which parties, e.g. vessel owners or coastal states, these profits accrue to.

Economic conditions in the southern longline fishery index has been at below average levels since 2010. From 2011 to 2014, the economic conditions were particularly poor as a result of low catch rates and high fuel prices despite exceptionally high fish prices in 2011 and 2012. Economic conditions improved significantly between 2014 and 2017 to be higher than the 20-year average in 2016 and 2017 as catch rates increased and fuel costs declined while prices remained around their long-term average. Despite, relatively high fish prices in 2018 and in particular for 2019, and low fuel prices in 2019, the index declined as a result of falls in the catch rate.

For the longline fishery, it can be seen that the economic conditions have been below average levels since 2011 driven primarily by below average catch rates. However, between 2013 and 2016, the index recovered as fuel costs fell and catch rates recovered conditions returned in 2016 to above 20-year average levels for the first time since 2010. Following the economic conditions improvement in 2016, the index continued to deteriorated as fuel prices rose and catch rates fell driving the index back below the 20-year average. Effort fell to 20-year lows in 2017 before rebound sharply in 2018 however, catch rates continued the recent decline that began in 2015 following the sharp increase in 2014. In 2019, the small increases in catch rates and reductions in fuel costs saw the economic conditions remain stable despite a decline in fish prices.

The purse seine fishery, however, displays a different picture to that of the longline fisheries movement in fish prices and catch rates appearing to be the greatest determinant of changes to economic conditions in the fishery and, unlike the longline fishery, not displaying a consistent downward trend that drives down economic conditions over time. Despite the falls in prices and increases in fuel costs, a surge in catch rates saw the continuation of good economic conditions in the purse fishery with the tropical purse seine fishery[14] economic conditions index remaining significantly above the 20-year average. Since 2012, the index has consistently outperformed the 20-year average index, however, in 2014 as fish prices declined, the index returned to more average levels. In the recent years, there is considerable variation in the contribution of the different index components. For instance, in 2012, 2013 and 2017, the high index readings were driven primarily by high fish prices while high catch rates were the main driver between 2014 and 2016 and in 2018 and 2019. The continuation of the decline in fish prices saw the economic conditions in 2019 decline marginally from 2018 levels despite the higher catch rates and lower fuel prices.

[13] Full details of the methodology used to derive the economic conditions indexes presented can be found in Skirtun, M and Reid, C. 2018, Analyses and projections for economic condition in WCPO fisheries, WCPFC-SC14-2018 ST- IP-06, Busan, Republic of Korea, August 8-16.

[14] The tropical purse seine fishery economic conditions index is based on the fishery that lies between 10^{o}N and 10^{o}S of the WPCFC-CA, excluding the waters of Indonesia, Philippines and Vietnam.

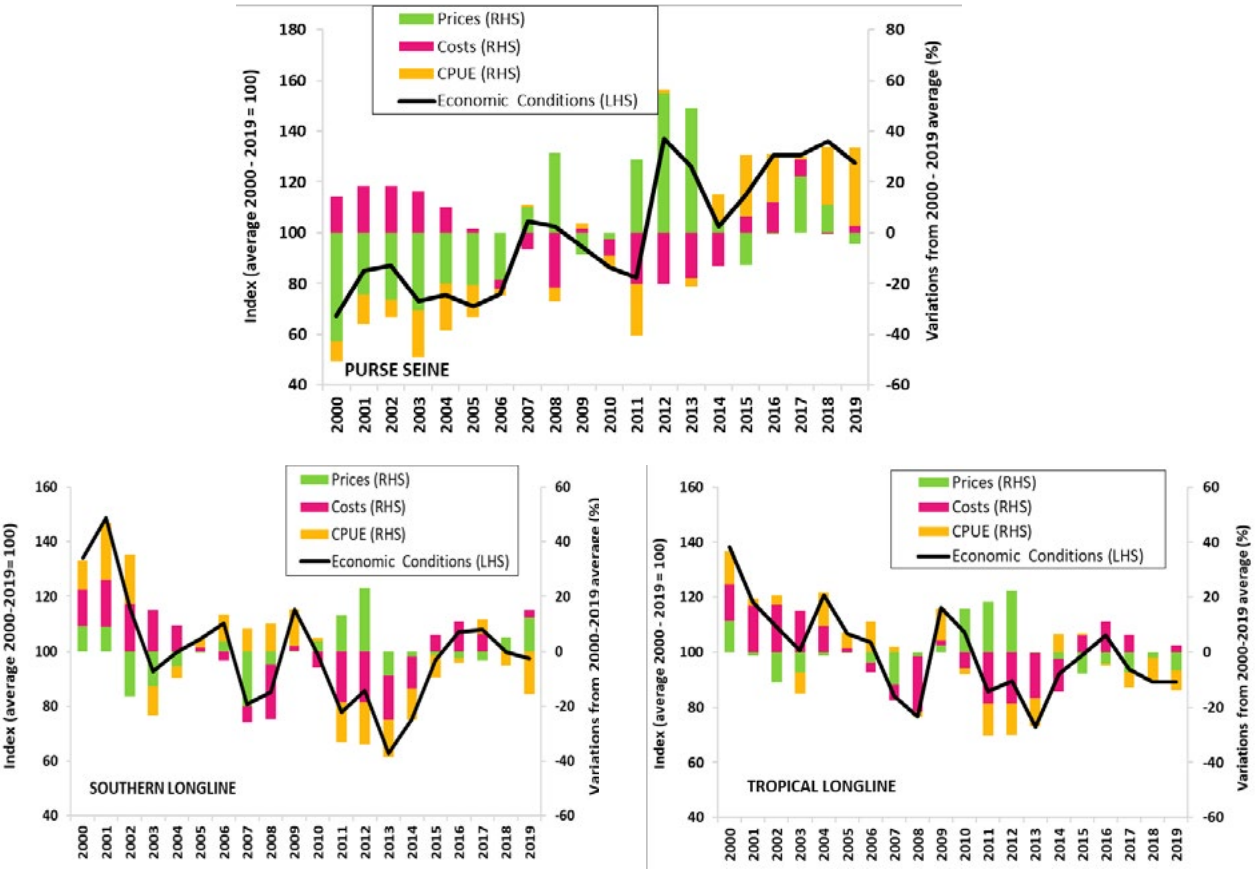


Figure 17: Fishery economic conditions indices (LHS) and variance of component indices against average conditions (RHS)

Contributions to the economies of FFA members

The tuna fisheries of the WCPO and associated industries make significant contributions to the economies of FFA member countries through, for example, government revenue, employment and exports. In this section a range of indicators and estimates of these contributions are presented. It is, however, important to note that much of the information provided relates to the level of a particular activity rather that the economic benefits generated from that activity.

Onshore processing

Following a 25% increase in the volume of tuna processed (round weight, includes all forms of processing from canning or loining operations and onshore sorting and packing for export) in 2017 processing volumes were steady in 2018 at an estimated 186,000mt. A further 20% increase was seen in 2019 with estimated volumes at around 223,000mt. This increase was driven by significant increases in processing volumes in PNG, Solomon Islands, FSM and the Marshall Islands which more than offset a decline in Fiji. This increase 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 2019. However, with the proportion of the catch taken in FFA Members' waters by FFA member's vessels also increasing within FFA members. The proportion of the catch taken by this fleet in FFA members waters remained in the 25-30% range. (Figure 18)

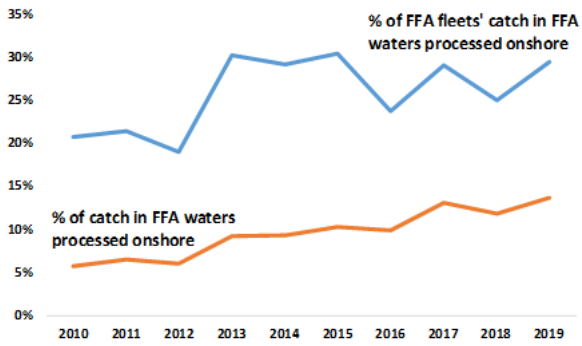


Figure 18: Onshore processing volumes as proportion of catch

The significant decline (41%) in Fiji in 2019 is understood to be have resulted from constraints PAFCOs ability to procure fish for their operation. The increases in PNG are 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. The significant increase in FSM was driven by an increase in product being sorted and packed for export.

Table 1. Volume of tuna processed onshore in FFA Members

	2012	2013	2014	2015	2016	2017	2018	2019
Cook Islands	103	200	200	205	220	320	548	186
Fiji	14,189	33,803	34,980	34,851	34,852	59,357	57,455	33,645
FSM	75	1,936	2,763	2,790	3,957	6,018	4,893	28,482
Kiribati	31	200	200	395	373	373	373	1,719
Marshall Islands	5,398	11,960	13,946	10,460	9,839	7,183	8,318	15,118
Palau	2,170	2,083	1,792	970	1,828	0	0	0
PNG	63,214	66,673	67,181	66,490	65,318	85,000	87,272	107,250
Samoa	2,725	2,209	1,344	1,329	5,702	7,284	5,107	5,539
Solomon Islands	12,796	24,789	40,487	28,501	24,239	18,691	20,819	28,231
Tonga	123	147	250	357	1,913	1,570	856	2,917
Vanuatu	680	200	201	0	0	0	0	146
Total	101,504	144,200	163,344	146,348	148,241	185,796	185,641	223,233

Notes: Includes all forms of processing from canning and loining operations to onshore sorting and packing. The data provided is based on data provided by FFA data collectors, except for 2018-19 PNG estimates which are based on estimates provided by NFA. In years prior to 2014 no verification process was in place and while verification and improved data collection processes have since been introduced responses to data requests from processors is often low which likely impacts on the robustness of the estimates made.

With regard to tuna processed in canning or loining operations, in 2019 there was a 6% increase to 179,000mt with 60% of this processed in PNG, 17% in Fiji, 14% in Solomon Islands, 8% in the Marshall Islands and 1% in Kiribati.

Purse seine port unloading volumes

Unloading volumes by purse seiners at ports of FFA members increased in 2018 and 2019 having been in a range of 1.03 to 1.13 million metric tonnes between 2012 and 2018. In 2018 unloading reached 1.21 million metric tonnes and increased again in 2019 to reach 1.30 million metric tonnes. Unloading volumes in Kiribati, at both Tarawa and Kiritimati, in 2019 were substantially higher than in previous years totalling more than 495,000mt (Table 2). This was the highest level of unloadings into any country with Tarawa also having the highest level of unloadings of any port. This increase in unloadings saw a significant increase in government revenue from transhipment fees, from AU$5.1 million in 2018 to AU$14.5 million in 2019[15].

Table 2. Volume of tuna unloaded by purse seiners in FFA Members' ports (mt)

	2012	2013	2014	2015	2016	2017	2018	2019
Fiji	1,251	220	7,002	7,460	6,033	3,166	160	1,610
FSM	170,158	256,292	120,697	65,891	146,590	175,147	286,225	143,526
Kiribati	180,677	135,119	289,525	250,640	128,389	147,732	213,449	495,578
Marshall Islands	320,897	280,559	498,990	391,212	397,736	294,218	296,910	351,998
New Zealand	2,185	1,870	1,122	1,282	211	0	1,005	0
PNG	298,958	271,104	125,529	116,479	121,766	191,902	159,523	126,047
Samoa	0	0	219	0	0	0	0	6,187
Solomon Islands	64,550	133,274	45,732	63,126	116,474	116,113	72,249	48,124
Tuvalu	27,943	3,770	33,492	140,106	116,026	150,118	176,542	125,857
TOTAL	**1,066,618**	**1,082,208**	**1,122,308**	**1,036,196**	**1,034,185**	**1,078,395**	**1,206,064**	**1,298,927**

[15] Refer to MEFD. Kiribati 2020 and 2021 Approved Recurrent Budget.

Employment

Total employment related to tuna fisheries in FFA member countries for 2019 is estimated at 23,861, an increase of 9% on the previous year and 24% since 2015. 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 2019 was estimated at 15,571. The harvest, observers and the public sector contribute around 26%, 3% and 5% of total employment respectively. The majority of those employed in the processing sector are employed in PNG, which accounts for about 66% of all processing works. Around 16% of processing employment is in the Solomon Islands, 9% in Fiji, 4% in the Marshall Islands, and 2% both in FSM and in Kiribati. Employment within the processing sector is dominated, at least at the factory floor level, by female employees which make up an estimated 63% of the workforce. The harvest sector and observer programs are, however, overwhelmingly male dominated while 67% of the public sector employees are also male.

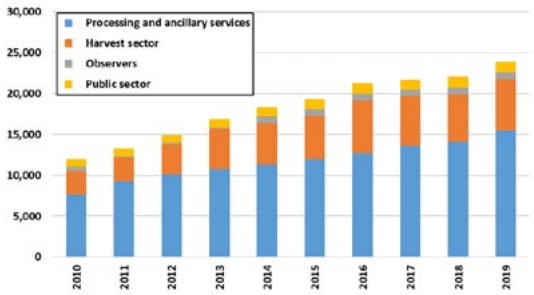


Figure 19: Tuna fisheries related employment
***Note**: Includes casual, part time and full time employment*

Exports

Estimates of export performance of FFA member countries are based on import data from the four major export destinations for tuna from the region, that is, Thailand, EU, US and Japan markets. In 2019, the value of exports from FFA member countries to these markets reached a new record at $928 million, 2% higher than in 2018.

Loin and frozen tuna products dominate exports from FFA members. Over the period 2014 to 2019 the value of frozen tuna imported into these markets from FFA members increased 90% to $522 million while imports of loins increased by 50% to $243 million. Significant growth was also observed for prepared and preserved products with the value increasing to $122 million in 2019 almost triple that for 2014 (Figure 20).

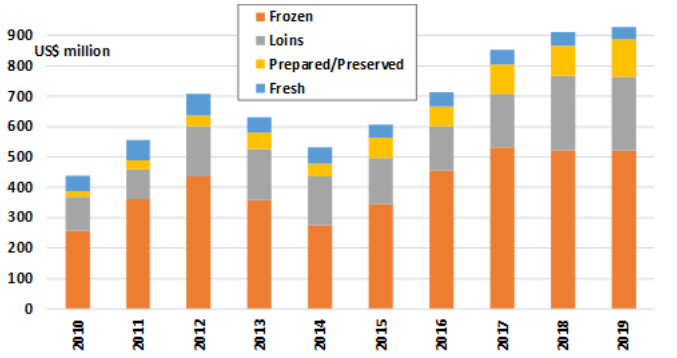


Figure 20: FFA imports into major markets by product
***Sources**: Eurostat, NMFS, Thai Customs, Japan Customs*

The value of EU imports (c.i.f.) in 2019 increased to $284 million by 8% from the previous year although the value of frozen tuna products was down by 50%. This was offset by the increase in the value of loin imports and prepared/preserved tuna imports, 4% and 23% respectively. The principal EU imports from FFA member countries are canned tuna and increasingly loins. There have been minimal imports

of fresh and frozen tuna products. Fiji, Papua New Guinea and Solomon Islands currently are the only suppliers with preferential access under IEPA[16] (Fiji and PNG) and EBA[17] (Solomon Islands).

The value of US imports (f.a.s.) from FFA member countries saw a marginal increase by just below 1% to $92 million in 2019. This was largely associated with tuna fresh and frozen imports increased by 3% to $18 million and $3 million respectively and Loins imports rose by 2% to $71 million. Tuna trade with the US is presently dominated by tuna loins at around 80% of annual totals with Fiji as the principal supplier. Prospects for canned tuna trade to the US market is limited under present tariff protections accorded to domestic processors. The sashimi/non-canned exports to the US consist mainly of fresh/frozen albacore, bigeye and yellowfin and value-added tuna products. Over the last 5 years, there has been a consistent growth in the value of these imports with Fiji the main supplier.

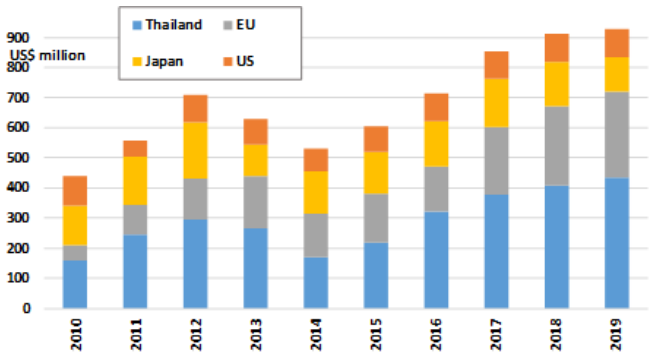


Figure 21: FFA tuna imports by major market

***Sources**: Eurostat, NMFS, Thai Customs, Japan Customs*

Since the last five years, the value of Japanese imports (c.i.f.) from FFA member had declined by 18% in 2019 although there was strong growth seen between 2016 and 2017.In 2018, saw a decline of 8% of the total value of imports with a further decline of 22% to $116 million in 2019. This was largely associated with the decline in the value of imports of fresh, frozen and loins by 13%, 19% and 37% respectively from the previous year. It is widely known that the vast majority of sashimi-grade tuna goes to the Japanese market, as the major destination for these products. This is of paramount importance to countries with longline fleets targeting sashimi grade product. Fiji and Palau traditionally have been the main suppliers to this market but other FFA countries such as Kiribati, FSM, Marshall Islands, PNG and Solomon Islands have also entered and export the fresh/frozen value-added products.

Thailand, the world's largest canning raw material importer, also has a significant level of imports from the region accounting for 47% of the total import value which totalled to $436 million (c.i.f) in 2019. This represents an increase of over 150% over the period 2014-19. Following a decline in the total value of imports in 2014 to $169 million from $267 million in 2013, the subsequent years saw the imports into Thailand continue to increase over time. The increase in the total value of imports from FFA member countries in 2019 came largely from the increases in import volumes from the fleets of PNG equivalent to $289 million (31% of the total value imports from FFA member countries) and FSM totalled to $133 million (14%).

[16] Interim Economic Partnership Agreement: In view of the expiry of the trade provisions set out in the Cotonou Agreement on 31 December 2007, the two Pacific ACP countries with any significant exports to the EU - Papua New Guinea (PNG) and Fiji - agreed an interim EPA with the EU in late 2007. Pending the conclusion of a comprehensive EPA between the Pacific States and the EU, the agreement maintains and improves PNG's and Fiji's preferences in the EU market for their main exports and ensures that they benefit from improved Rules of Origin for key products like canned tuna. The agreement was signed by the Parties in the latter half of 2009. Provisional application of the agreement for PNG started on 20 December 2009. Fiji notified provisional application of the agreement in July 2014. The European Parliament approved the agreement on 19 February 2011, while the National Parliament of Papua New Guinea ratified it on 25 May 2011 (http://trade.ec.europa.eu/).

[17] Everything But Arms: an initiative of the European Union under which all imports to the EU from the Least Developed Countries (LDCs) are duty-free and quota-free, with the exception of armaments. The aim of the scheme is to encourage the development of the world's poorest countries. EBA entered into force on 5 March 2001 and is part of the EU Generalized System of Preferences (GSP). Kiribati, Samoa, Solomon Islands, Tuvalu and Vanuatu all benefit from the EBA. The non-LDCs that did not join the interim EPA (Cook Islands, Tonga, Marshall Islands, Micronesia, Niue, Palau and Nauru) have benefited from the EU's regular Generalised System of Preferences since 1 January 2008 (http://trade.ec.europa.eu/).

Access fees paid by foreign vessels

Foreign vessels are defined as vessels that are based outside of the country in question, whether they are based in a DWFN or another FFA member. In this section, it illustrates the trend of access fees paid to FFA member countries by the Purse Seine, Longline and pole and line vessels. These fees include payment by FSM Arrangement (FSMA) vessels to countries and the US Treaty fees. Government revenues generated by locally based and domestic vessels are examined in addressing the economic contributions of the harvesting and processing sectors.

Access to data on government revenues from fees paid for fishery access has improved in recent years, allowing estimation at the national level. Details of the sources and derivation of foreign access fee revenues at the country level are provided in the footnotes to the *National level data* tables (Section C) of the attached Compendium of Economic Development and Development Statistics. It is important to note that gaps still remain in some of the data sets and best estimates based on institutional knowledge and anecdotal information have been made. The broad approach used to calculate national revenues from foreign access fees is as follows:

- Revenues from foreign longline and pole and line vessels are based on the 5% of the value of the catch taken by foreign vessels and 2.5% of domestic vessels in an FFA member's EEZ.
- Revenue from **purse seine vessels operating under foreign bilateral and other arrangements**: Where access fees payments are made publicly by a country the estimates are based on these data. As the data is usually in the form of total revenues from the sale of licenses and/or access rights, foreign bilateral fees are calculated as the total amount received less, as applicable, the estimated access/licensing revenue from foreign longline vessels, US Treaty vessel, non-Home Party FSM Arrangement vessels and locally based or domestic vessels. Where no publicly available data is available nor is information provided by the respective FFA member revenue estimates are based on the following:
    - Prior to 2012: 6% of the estimated value of the catch taken in the respective EEZ.
    - From 2012 onwards: The product of the number of days available to these vessels (calculated as the allocated PAE less allocations to FSMA Home-Party vessel allocations and the UST) and the deemed price for VDS days for a given year. This benchmark price was set at $5000 in 2011, increased to $6000 in 2014 and again increased to $8000 in 2015 where it currently stands. VDS days in 2019 are understood to have sold in a range between $9,000 and $14,000/day.

Access fee revenue collected by FFA member government from purse seine, longline and pole and line reached a new record of $550 million in 2019. This represents a $38 million increase (8%) from the previous year. Over the last 5 years, total revenue has increased by almost 50%. The rapid growth in access fees since 2011 has been extremely impressive, with an average annual growth rate of 15.3% between 2011 and 2019 being achieved.

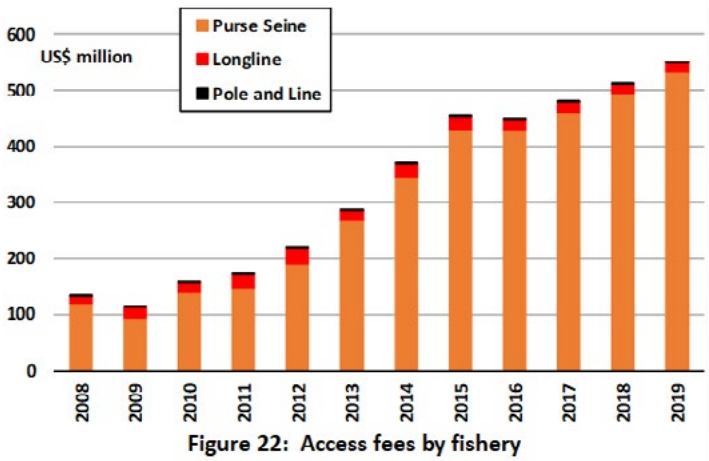


Figure 22: Access fees by fishery

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.

Economic benefits from tuna harvesting and on-shore processing sectors

This section presents a range of measures of the economic benefits generated by distinct or combined harvesting and/or onshore processing entities in the longline fishery for fresh or frozen exporting, and in the purse seine fishery for transhipment, exporting, loining or combined activities. The measures of economic benefit provided are:

- **Balance of payments –** export sales less the imported content of local purchases (for example fuel) and direct imports and off shore services, any local sales are treated as import substitution;
- **Employment earnings** - includes expatriates resident in the country and employed by the enterprise;
- **Net local purchases** – local purchases reduced by an amount representing an estimate of the off-shore content of the products or services purchased.

The approach used is based on updated estimated rates of economic benefit per tonne from different operational models, including, transhipping at a domestic port, catch brought ashore for simple fresh round exporting and value-added processing obtained from previous FFA studies[18] and estimated levels of throughput under the different operational models. Two important upward revisions to the per tonne contributions were made in preparation of this report – the tuna loining operation contributions that corresponded with revision of the VAR to 37% from 17%; revision of the per tonne contributions for the conventional tuna fishing model (grading/gutting/packing type operations) corresponding with revision of the VAR to 50% from 25%.

An estimated 938,000mt of catch by FFA national fleets (that is, vessels flagged by or chartered to them) and also the highest on record reportedly occurred during 2019. This was a 12% increase from 841, 000mt in 2018. In 2019, 223,000 mt were processed in some form onshore in FFA member countries (24% of catch taken by FFA national fleets) increased from the estimated 186,000mt processed in 2018.

The estimated economic benefits generated by domestic harvesting and on-shore processing activities over the period 2013 to 2019 are summarised in Table 3 below. As can be seen it is estimated that in 2019 the domestic harvest and processing sectors in the region:

- Generated a net inflow of $687 million benefit to the balance of payments in the form of net exports.

[18] The per tonne benefit rates were obtained primarily from *ibid*. However, where more recent country specific studies providing this information are available these are used. Given the length of time since the studies were conducted, adjustments were made to account for the changes in prices over time for fuel, other operational costs and fish prices. In the case of fuel costs, the adjustment factor was the relative change in the Singapore marine diesel oil price (MDO) between 2006 and 2014, other operational costs were adjusted using the change in US CPI over the same period while on the revenue side the relative changes in the relevant composite prices series for the respective gear type catches were used. In addition adjustments were also made to the government revenue rate to account for the revenue obtained from the allocation of VDS days by Home Parties to their sponsored vessels as the estimates of government revenues obtained in the earlier studies were made before the introduction of the VDS.

- Paid $72 million to national employees.
- Generated $147 million net purchases of goods and services to local economies

Table 3: Economic contributions of the domestic harvest and processing sectors (US$ millions)

Year	Balance of payments	Employment earnings	Net local purchases
2013	540	40	115
2014	576	55	130
2015	559	52	125
2016	544	57	121
2017	590	69	137
2018	656	71	149
2019	687	72	147

Compendium of Economic and Development Statistics

This section provides a selection of statistics in relation to the tuna fisheries of the Western and Central Pacific Ocean. These data are also available in excel spreadsheets here.

The first set of tables provide information of global catch and WCPO catch and catch value by area, species and gear type. Additional information on the breakdown of the WCPO catch and catch value can be found in excel spreadsheet format here.

The second set of tables provide prices from a number of markets for albacore, bigeye, skipjack, yellowfin and swordfish. Also provided are the Singapore Marine Diesel fuel price, the exchange rate between the US dollar (USD) and Japanese Yen (JPY) and the all-city US consumer prices index (CPI) used in deriving the economic indicators presented previously.

The final set of tables provide country level data of the catch and value of the catch taken in each member's EEZ and by their national fleet and the contribution that the tuna harvest and related sectors make to the economies of FFA member countries. These contributions are:

- **Government revenue** – total license and access fee revenue collected from domestic and foreign fishing vessels.
- **Employment** – number employed by sector and total employment earnings (which includes earnings of expatriates resident in the country);
- **Balance of payments –** export sales less the imported content of local purchases (for example fuel) and direct imports and off shore services, any local sales are treated as import substitution;
- **Net local purchases** – local purchases reduced by an amount representing an estimate of the off-shore content of the products or services purchased.

A Catch ('000 metric tonnes) and catch values (US$ millions)

A1 Global catch by Ocean

	Western Pacific	Eastern Pacific	Atlantic	Indian	Total
1970	633	294	237	126	1,290
1971	623	305	291	120	1,339
1972	515	311	303	112	1,242
1973	633	339	306	127	1,405
1974	649	371	358	159	1,537
1975	578	413	301	140	1,432
1976	719	466	316	147	1,648
1977	743	403	373	171	1,689
1978	791	474	369	179	1,813
1979	760	410	338	160	1,667
1980	828	397	368	161	1,754
1981	802	393	417	171	1,783
1982	856	306	469	206	1,836
1983	1,062	243	430	219	1,954
1984	1,152	292	373	300	2,116
1985	1,006	367	430	349	2,152
1986	1,142	471	424	404	2,440
1987	1,139	468	405	445	2,456
1988	1,266	485	414	542	2,707
1989	1,304	496	426	562	2,789
1990	1,425	515	491	596	3,028
1991	1,650	460	545	604	3,258
1992	1,578	465	505	709	3,257
1993	1,468	442	560	845	3,315
1994	1,605	449	572	832	3,459
1995	1,621	498	525	847	3,490
1996	1,625	508	488	848	3,468
1997	1,668	578	456	876	3,578
1998	2,044	548	473	857	3,922
1999	1,839	690	506	994	4,028
2000	1,951	667	461	942	4,021
2001	1,860	729	478	912	3,979
2002	2,047	768	393	1,022	4,231
2003	2,060	849	427	1,111	4,448
2004	2,253	646	445	1,169	4,513
2005	2,223	690	403	1,244	4,560
2006	2,272	630	371	1,211	4,484
2007	2,481	516	363	974	4,333
2008	2,537	626	362	925	4,450
2009	2,604	626	400	867	4,496
2010	2,499	544	425	864	4,332
2011	2,320	620	459	840	4,240
2012	2,654	629	491	897	4,672
2013	2,657	643	480	978	4,759
2014	2,865	656	464	959	4,944
2015	2,611	742	495	933	4,782
2016	2,682	727	536	1,017	4,962
2017	2,570	688	529	1,054	4,842
2018	2,794	670	566	1,183	5,213
2019	2,978	716	526	1,084	5,304

A2 Global catch by species

	Albacore	Bigeye	Skipjack	Yellowfin	Total
1997	231	554	1,542	1,263	3,591
1998	246	530	1,807	1,359	3,942
1999	267	535	1,910	1,323	4,035
2000	249	536	1,926	1,332	4,043
2001	275	503	1,792	1,434	4,004
2002	287	528	2,009	1,424	4,248
2003	265	483	2,167	1,540	4,455
2004	251	543	2,182	1,530	4,506
2005	221	468	2,386	1,466	4,541
2006	238	468	2,543	1,211	4,460
2007	243	445	2,466	1,132	4,285
2008	215	438	2,507	1,243	4,402
2009	254	451	2,619	1,182	4,506
2010	247	396	2,458	1,250	4,351
2011	233	419	2,417	1,189	4,257
2012	269	463	2,620	1,335	4,687
2013	259	425	2,812	1,295	4,791
2014	251	422	2,924	1,364	4,962
2015	245	423	2,770	1,373	4,811
2016	220	407	2,854	1,481	4,961
2017	241	403	2,726	1,477	4,847
2018	233	411	3,056	1,518	5,218
2019	239	394	3,220	1,412	5,264

A3 Global catch by gear type

	Purse seine	Longline	Pole & line	Other	Total
1997	1,930	566	306	788	3,591
1998	2,173	612	330	827	3,942
1999	2,239	557	343	896	4,035
2000	2,258	603	323	859	4,043
2001	2,246	636	277	846	4,004
2002	2,479	638	288	842	4,248
2003	2,631	629	305	889	4,455
2004	2,483	651	325	1,046	4,506
2005	2,680	605	270	986	4,541
2006	2,632	546	259	1,024	4,460
2007	2,495	514	286	990	4,285
2008	2,736	452	272	942	4,402
2009	2,806	486	267	946	4,506
2010	2,671	470	271	940	4,351
2011	2,605	459	275	918	4,257
2012	2,876	515	244	1,053	4,687
2013	3,011	451	230	1,098	4,791
2014	3,177	464	208	1,113	4,962
2015	2,999	479	214	1,119	4,811
2016	3,163	435	198	1,165	4,961
2017	3,148	440	171	1,088	4,847
2018	3,348	438	231	1,201	5,218
2019	3,448	447	183	1,187	5,264

A4 WCPO catch by area

	FFA member's national waters	Other national waters	International waters	Total
1997	605	631	444	1,681
1998	782	710	572	2,064
1999	656	684	504	1,845
2000	777	748	448	1,973
2001	772	653	459	1,885
2002	895	648	522	2,064
2003	873	712	482	2,067
2004	894	828	524	2,245
2005	1,008	664	532	2,204
2006	1,105	712	431	2,248
2007	1,141	799	493	2,433
2008	1,212	815	462	2,489
2009	1,276	829	508	2,613
2010	1,526	723	269	2,518
2011	1,440	659	239	2,338
2012	1,673	734	264	2,670
2013	1,570	860	260	2,690
2014	1,755	822	306	2,883
2015	1,427	784	430	2,641
2016	1,500	871	309	2,681
2017	1,424	841	311	2,576
2018	1,575	884	340	2,800
2019	1,633	862	443	2,938

A5 WCPO catch value by area

	FFA member's national waters	Other national waters	International waters	Total
1997	933	1,028	1,033	2,994
1998	1,042	1,051	1,130	3,223
1999	771	876	994	2,641
2000	796	935	976	2,708
2001	874	893	917	2,684
2002	917	850	996	2,763
2003	898	937	923	2,759
2004	1,049	1,202	1,119	3,369
2005	1,170	1,030	1,062	3,261
2006	1,375	1,123	994	3,493
2007	1,805	1,479	1,085	4,369
2008	2,396	1,819	1,311	5,527
2009	1,939	1,512	1,243	4,695
2010	2,455	1,478	1,132	5,065
2011	3,061	1,798	1,185	6,044
2012	4,154	2,122	1,214	7,490
2013	3,552	2,203	923	6,678
2014	3,165	1,761	889	5,815
2015	2,322	1,470	958	4,751
2016	2,614	1,711	871	5,195
2017	2,999	1,872	1,059	5,931
2018	3,054	2,044	1,108	6,206
2019	2,771	1,691	1,297	5,759

A6 WPCO catch by species

	Albacore	Bigeye	Skipjack	Yellowfin	Total
1997	110	169	905	497	1,681
1998	109	178	1,165	612	2,064
1999	121	163	1,043	517	1,845
2000	102	150	1,151	570	1,973
2001	121	151	1,077	535	1,885
2002	147	170	1,253	494	2,064
2003	126	141	1,254	546	2,067
2004	124	192	1,347	582	2,245
2005	104	153	1,395	552	2,204
2006	105	159	1,496	489	2,248
2007	123	143	1,649	518	2,433
2008	106	151	1,628	604	2,489
2009	136	148	1,789	540	2,613
2010	124	140	1,697	558	2,518
2011	114	158	1,541	525	2,338
2012	138	165	1,758	609	2,670
2013	135	156	1,843	556	2,690
2014	119	162	2,005	598	2,883
2015	118	143	1,797	584	2,641
2016	94	149	1,788	650	2,681
2017	121	131	1,626	697	2,576
2018	106	150	1,851	692	2,800
2019	111	157	2,053	618	2,938

A7 WCPO catch value by species

	Albacore	Bigeye	Skipjack	Yellowfin	Total
1997	242	663	1,073	1,017	2,994
1998	223	651	1,238	1,112	3,223
1999	232	721	830	859	2,641
2000	236	690	787	995	2,708
2001	303	569	903	909	2,684
2002	264	587	1,013	900	2,763
2003	237	545	969	1,008	2,759
2004	270	749	1,238	1,111	3,369
2005	253	602	1,321	1,085	3,261
2006	280	653	1,473	1,086	3,493
2007	239	652	2,228	1,250	4,369
2008	264	799	2,862	1,603	5,527
2009	358	801	2,172	1,364	4,695
2010	331	875	2,286	1,574	5,065
2011	346	1,041	2,785	1,872	6,044
2012	489	1,141	3,798	2,064	7,490
2013	338	797	3,814	1,729	6,678
2014	342	798	2,956	1,720	5,815
2015	355	660	2,233	1,503	4,751
2016	275	685	2,637	1,599	5,195
2017	362	660	2,965	1,943	5,931
2018	358	774	3,090	1,984	6,206
2019	438	692	2,929	1,700	5,759

A8 WPCO catch by gear type

	Longline	Pole and line	Purse seine	Other	Total
1997	226	299	959	197	1,681
1998	251	324	1,256	233	2,064
1999	219	338	1,062	225	1,845
2000	248	320	1,143	262	1,973
2001	265	272	1,119	229	1,885
2002	282	286	1,265	231	2,064
2003	262	304	1,258	243	2,067
2004	286	322	1,353	284	2,245
2005	250	267	1,477	209	2,204
2006	255	258	1,512	223	2,248
2007	245	285	1,650	253	2,433
2008	247	270	1,708	264	2,489
2009	280	264	1,782	287	2,613
2010	274	270	1,703	271	2,518
2011	261	275	1,550	251	2,338
2012	275	243	1,840	313	2,670
2013	242	230	1,895	323	2,690
2014	265	207	2,057	354	2,883
2015	271	214	1,752	404	2,641
2016	235	198	1,829	419	2,681
2017	246	171	1,822	337	2,576
2018	257	231	1,893	418	2,800
2019	260	183	2,034	461	2,938

A9 WCPO catch value by gear type

	Longline	Pole and line	Purse seine	Other	Total
1997	1,126	408	1,202	258	2,994
1998	1,085	419	1,436	283	3,223
1999	1,206	398	854	183	2,641
2000	1,369	370	779	190	2,708
2001	1,203	313	959	209	2,684
2002	1,155	332	1,062	214	2,763
2003	1,161	357	1,019	222	2,759
2004	1,428	382	1,276	283	3,369
2005	1,222	370	1,451	218	3,261
2006	1,323	369	1,556	244	3,493
2007	1,231	468	2,303	367	4,369
2008	1,480	559	3,019	468	5,527
2009	1,711	438	2,188	359	4,695
2010	1,866	523	2,304	372	5,065
2011	2,047	705	2,823	469	6,044
2012	2,098	658	4,032	702	7,490
2013	1,477	527	3,978	697	6,678
2014	1,716	418	3,119	562	5,815
2015	1,588	373	2,248	542	4,751
2016	1,463	374	2,732	627	5,195
2017	1,498	379	3,420	633	5,931
2018	1,733	493	3,227	753	6,206
2019	1,607	390	3,021	740	5,759

A10 National waters of FFA members catch by species

	Albacore	Bigeye	Skipjack	Yellowfin	Total
1997	14	64	316	212	605
1998	18	59	433	271	782
1999	13	60	375	208	656
2000	20	44	472	242	777
2001	23	55	458	237	772
2002	24	60	606	205	895
2003	22	42	567	243	873
2004	24	62	573	235	894
2005	26	46	672	264	1,008
2006	33	51	794	227	1,105
2007	28	47	821	246	1,141
2008	29	53	797	333	1,212
2009	36	58	927	256	1,276
2010	30	62	1,097	337	1,526
2011	30	81	1,031	298	1,440
2012	38	81	1,203	351	1,673
2013	36	75	1,162	297	1,570
2014	35	84	1,307	328	1,755
2015	37	67	1,031	292	1,427
2016	35	66	1,047	352	1,500
2017	34	59	955	375	1,424
2018	34	63	1,169	310	1,575
2019	35	56	1,278	265	1,633

A11 National waters of FFA members catch value by species

	Albacore	Bigeye	Skipjack	Yellowfin	Total
1997	173	168	365	369	1,076
1998	147	135	445	424	1,151
1999	180	204	272	270	925
2000	176	163	276	312	927
2001	57	144	373	300	874
2002	43	121	469	283	917
2003	41	104	410	344	898
2004	53	143	508	345	1,049
2005	64	105	597	404	1,170
2006	88	136	744	407	1,375
2007	55	160	1,087	504	1,805
2008	72	207	1,367	751	2,396
2009	95	233	1,092	519	1,939
2010	81	233	1,402	739	2,455
2011	91	347	1,758	864	3,061
2012	134	428	2,552	1,041	4,154
2013	91	285	2,381	795	3,552
2014	102	346	1,890	828	3,165
2015	113	267	1,254	689	2,322
2016	102	238	1,522	752	2,614
2017	102	215	1,726	956	2,999
2018	114	225	1,903	812	3,054
2019	139	174	1,782	674	2,770

A12 National waters of FFA members catch by gear type

	Longline	Pole and line	Purse seine	Other	Total
1997	44	31	526	5	605
1998	43	43	689	6	782
1999	46	28	576	6	656
2000	54	15	695	13	777
2001	56	21	691	4	772
2002	53	20	813	8	895
2003	50	29	788	6	873
2004	56	11	821	6	894
2005	50	16	937	5	1,008
2006	66	18	1,017	4	1,105
2007	65	11	1,051	15	1,141
2008	65	5	1,127	16	1,212
2009	81	4	1,177	15	1,276
2010	72	8	1,432	15	1,526
2011	74	6	1,342	18	1,440
2012	91	9	1,556	16	1,673
2013	72	7	1,484	7	1,570
2014	100	7	1,641	7	1,755
2015	104	8	1,308	7	1,427
2016	83	7	1,404	7	1,500
2017	79	2	1,336	7	1,424
2018	79	5	1,484	7	1,575
2019	77	7	1,542	7	1,633

A13 National waters of FFA members catch value by gear type

	Longline	Pole and line	Purse seine	Other	Total
1997	287	108	662	18	1,076
1998	236	99	798	19	1,151
1999	328	121	464	12	925
2000	363	70	470	23	927
2001	248	24	594	8	874
2002	203	21	683	10	917
2003	211	33	646	9	898
2004	256	11	772	9	1,049
2005	215	23	923	9	1,170
2006	301	27	1,039	8	1,375
2007	292	18	1,473	22	1,805
2008	356	12	1,998	31	2,396
2009	464	8	1,447	21	1,939
2010	463	22	1,948	22	2,455
2011	557	19	2,447	37	3,061
2012	678	29	3,409	39	4,154
2013	405	17	3,113	17	3,552
2014	644	15	2,493	13	3,165
2015	603	15	1,691	14	2,322
2016	481	16	2,104	13	2,614
2017	469	4	2,511	15	2,999
2018	503	12	2,523	16	3,054
2019	451	14	2,286	18	2,770

A14 National fleets of FFA members (excluding Australia and New Zealand): Vessel numbers, catch and catch value by gear type[a]

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of vessels	*number*	**591**	**650**	**629**	**570**	**564**	**586**	**469**	**497**	**551**	**497**
Longline		*489*	*536*	*512*	*456*	*462*	*476*	*337*	*367*	*427*	*364*
Purse seine		*102*	*114*	*117*	*114*	*102*	*110*	*132*	*130*	*124*	*133*
Catch	*mt*	**423,848**	**439,442**	**531,365**	**466,657**	**587,469**	**617,355**	**692,209**	**715,642**	**838,202**	**948,822**
Longline		*53,233*	*41,696*	*46,727*	*36,666*	*66,088*	*76,139*	*36,687*	*48,664*	*55,377*	*63,762*
Pole and line		*160*	*906*	*2,378*	*2,051*	*1,772*	*1,051*	*711*	*1,055*	*1,080*	*1,121*
Purse seine		*357,452*	*381,444*	*468,919*	*423,309*	*514,907*	*535,500*	*649,885*	*661,034*	*776,855*	*878,946*
Other		*13,003*	*15,396*	*13,341*	*4,632*	*4,702*	*4,665*	*4,926*	*4,889*	*4,873*	*4,993*
Value of catch	*US$ mill*	**738**	**953**	**1,360**	**1,082**	**1,171**	**1,095**	**1,166**	**1,507**	**1,669**	**1,691**
Longline		*252*	*244*	*300*	*169*	*375*	*412*	*205*	*267*	*333*	*377*
Pole and line		*0.2*	*1.6*	*5.1*	*4.3*	*2.7*	*1.3*	*1.0*	*2.0*	*1.8*	*1.7*
Purse seine		*469*	*679*	*1,027*	*899*	*786*	*675*	*953*	*1,228*	*1,325*	*1,304*
Other		*18*	*28*	*29*	*10*	*8*	*6*	*7*	*9*	*9*	*8*

Notes: **a.** Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Vessel numbers only available for purse seine and longline vessels

Prices (US$/mt)

B1 Albacore

	Thailand – Frozen[a]	Japan – Fresh[b]	Japan – Frozen[c]	US – Fresh[d]	US – Frozen[f]
1997	2,196	4,488	2,858	3,039	2,442
1998	2,049	4,359	2,514	2,692	2,252
1999	1,910	5,474	2,846	2,847	2,204
2000	2,317	5,490	3,152	3,182	2,497
2001	2,496	5,194	4,172	3,435	2,611
2002	1,790	4,944	2,203	3,405	2,058
2003	1,884	5,317	2,560	3,565	2,060
2004	2,173	5,305	2,065	3,071	2,362
2005	2,430	5,225	3,358	3,314	2,910
2006	2,674	5,697	2,803	3,408	2,565
2007	1,948	5,956	2,475	3,761	2,760
2008	2,488	7,509	3,825	3,960	2,900
2009	2,643	7,018	3,133	4,196	2,319
2010	2,675	8,372	3,496	3,773	2,780
2011	3,044	8,345	3,138	4,134	1,889
2012	3,534	9,207	3,813	4,638	2,214
2013	2,512	7,271	2,655	4,121	1,942
2014	2,876	7,286	2,983	4,006	2,307
2015	3,020	5,915	3,289	4,193	2,211
2016	2,935	6,998	3,216	4,496	1,900
2017	2,980	7,408	3,073	4,728	2,615
2018	3,367	6,147	3,330	4,631	9,136
2019	3,958	6,230	4,123	5,512	6,781
2020	3,505	6,343	2,703	5,859	7,904

***Notes**: a. Thai imports of frozen whole round albacore (c&f). b. Japanese fresh albacore imports from Oceania (c.i.f). c. Frozen albacore at selected Japanese ports (ex-vessel). d. US Imports of fresh albacore from Oceania (excl. Aust. & NZ, f.a.s). e. US Imports of frozen albacore from all sources (f.a.s).*

B2 Bigeye

	Japan – Fresh[a]	Japan – Frozen[b]	US – Fresh[c]	US – Frozen[d]
1997	8,204	8,169	na	na
1998	7,703	6,320	na	na
1999	8,809	9,093	na	na
2000	9,198	8,557	na	na
2001	8,260	5,983	5,904	2,383
2002	7,719	5,180	6,250	2,220
2003	8,200	5,367	4,929	2,643
2004	8,995	6,025	5,703	2,234
2005	9,290	5,609	5,154	2,161
2006	8,896	6,258	3,486	2,070
2007	8,778	6,780	2,545	2,111
2008	9,962	8,279	2,259	2,044
2009	10,443	9,791	2,376	2,098
2010	12,759	11,123	2,447	2,310
2011	12,737	13,045	3,596	2,075
2012	13,489	12,008	3,993	2,100
2013	11,424	8,819	4,883	2,041
2014	10,514	9,031	5,020	2,025
2015	9,725	7,738	5,914	3,434
2016	10,511	9,426	6,320	2,545
2017	10,158	10,236	8,251	2,250
2018	10,945	9,674	9,635	2,208
2019	9,611	8,953	9,746	2,156
2020	11,747	7,783	11,179	19,065

***Notes**: a. Japanese fresh imports of bigeye from Oceania (c.i.f). b. Frozen bigeye at selected Japanese ports (ex-vessel). c. US Imports of fresh bigeye from Oceania, excl. Aust & NZ (f.a.s). d. US Imports of frozen bigeye from all sources (f.a.s).*

B3 Skipjack

Year	Purse seine		Pole and line	
	Thailand[a]	Japan[b]	Japan - 'South[c]	Japan - All[d]
1997	1,130	1,268	1,532	1,818
1998	993	1,083	1,963	1,910
1999	652	971	1,837	1,995
2000	536	683	1,502	1,567
2001	788	861	1,250	1,399
2002	751	831	1,268	1,398
2003	700	708	1,208	1,311
2004	889	862	1,419	943
2005	873	890	1,326	1,244
2006	918	963	1,822	1,882
2007	1,328	1,256	1,613	1,765
2008	1,700	1,778	2,416	2,397
2009	1,154	1,325	2,704	2,596
2010	1,242	1,410	2,124	2,243
2011	1,681	1,791	2,323	2,371
2012	2,117	2,101	3,243	3,310
2013	2,070	1,891	2,386	2,402
2014	1,447	1,393	2,243	2,356
2015	1,195	1,346	2,141	2,054
2016	1,425	1,635	2,424	2,352
2017	1,782	1,998	2,895	2,856
2018	1,641	1,499	2,117	2,049
2019	1,399	1,321	2,055	1,817
2020	1,364	1,468	2,611	2,948

***Notes**: a. Thai imports of frozen whole round skipjack (c&f). b. Purse seine caught skipjack landed at Yaizu port (ex-vessel). c. 'South' Pole and line caught skipjack landed at Yaizu (ex-vessel). d. Average ('South' & 'Other') Pole and line caught skipjack landed at Yaizu (ex-vessel).*

B4 Yellowfin

Year	Purse seine		Longline		
	Thailand[a]	Japan[b]	Japan – Fresh[c]	Japan – Frozen[d]	US – Fresh[e]
1997	1,454	1,354	6,717	4,551	3,938
1998	1,408	1,457	6,070	3,357	4,225
1999	935	1,452	7,479	5,142	5,364
2000	863	1,528	7,683	4,914	3,659
2001	960	1,202	6,739	3,497	4,420
2002	1,074	1,337	6,587	3,530	4,060
2003	1,093	1,422	7,217	3,571	3,983
2004	1,080	1,313	7,558	3,986	3,833
2005	1,269	1,598	7,742	3,787	3,625
2006	1,375	1,805	7,765	4,754	3,043
2007	1,696	1,935	7,882	4,763	3,598
2008	1,881	2,553	8,938	6,141	3,692
2009	1,373	2,275	9,036	6,581	3,719
2010	1,547	2,867	10,197	7,221	3,444
2011	2,150	3,838	11,153	8,428	4,300
2012	2,423	3,304	10,972	7,605	5,096
2013	2,313	2,442	10,013	6,197	5,472
2014	1,822	2,392	9,772	6,480	5,770
2015	1,568	2,076	8,780	5,313	6,108
2016	1,606	2,309	9,495	5,689	6,500
2017	2,058	2,421	9,491	7,295	6,408
2018	1,954	2,548	10,106	6,627	8,144
2019	1,925	2,338	8,916	5,394	8,817
2020	1,672	2,070	10,046	4,962	9,660

***Notes**: a. Thai imports of frozen whole round yellowfin (c&f). b. Purse seine caught yellowfin landed at Yaizu port (ex-vessel). c. Japanese fresh imports of yellowfin from Oceania (c.i.f). d. Longline caught yellowfin landed at Yaizu port (ex-vessel). e. US Imports of fresh yellowfin from Oceania (excl. Aust. & NZ; f.a.s).*

B5 Swordfish

Year	Japan - Frozen[a]	Japan - Fresh[b]	US - Frozen[c]	US - Fresh[d]
1997	6,385	7,533	4,964	5,873
1998	4,864	6,737	4,649	5,182
1999	5,968	6,839	4,443	4,888
2000	6,657	7,213	5,710	5,529
2001	5,497	6,994	7,148	5,836
2002	4,680	6,716	3,432	5,973
2003	4,355	6,382	4,041	6,209
2004	5,521	7,056	4,758	6,898
2005	na	7,437	6,295	7,375
2006	2,613	6,782	5,386	7,406
2007	6,291	7,293	6,296	8,031
2008	7,156	8,684	7,409	7,812
2009	7,810	8,953	6,725	7,677
2010	8,588	10,023	4,961	8,887
2011	10,009	10,761	7,124	8,345
2012	9,697	10,511	9,056	8,540
2013	6,331	8,656	9,736	8,824
2014	6,845	8,636	3,690	8,624
2015	6,035	7,881	9,125	7,894
2016	6,633	8,729	6,420	8,276
2017	6,750	8,964	6,975	7,638
2018	7,279	8,867	7,816	7,344
2019	7,726	10,040	9,440	7,471
2020	7,128	8,988	7,913	7,066

***Notes**: a. Frozen swordfish landed at Japan selected ports (ex-vessel). b. Japanese fresh swordfish landed at Japan selected ports (ex-vessel). c. US imports of frozen swordfish from all sources (f.a.s.). d. US Imports of fresh swordfish from all sources (f.a.s).*

B6 Marine Diesel Oil, USD:JPY exchange rate and US CPI

Year	Singapore Marine Diesel Oil (MDO)[a] *(US$ per tonne)*	USD:JPY[b]	US CPI[c]
1997	169	121	100.0
1998	108	131	101.5
1999	151	114	103.8
2000	249	108	107.3
2001	202	122	110.3
2002	203	125	112.0
2003	239	116	114.6
2004	334	108	117.7
2005	475	110	121.6
2006	569	116	125.6
2007	630	118	129.2
2008	905	103	134.1
2009	518	94	133.7
2010	662	88	135.9
2011	923	80	140.1
2012	942	80	143.0
2013	660	98	145.1
2014	838	106	147.5
2015	485	121	147.6
2016	392	109	149.5
2017	498	112	152.7
2018	644	110	156.4
2019	597	109	159.3
2020	394	107	161.2

***Notes**: a. BunkerWorld (1997 to 2015) and Ship & Bunker (2016). b. IMF (https://www.imf.org/external/np/fin/ert/GUI/Pages/CountryDataBase.aspx). c. Bureau of Labor Statistics, United Sates Department of Labor (https://www.bls.gov/data/) – data adjusted so 1997 = 100.*

C National Data

C1 Cook Islands - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**6,559**	**11,048**	**30,746**	**16,693**	**20,472**	**24,761**	**12,625**	**23,383**	**38,020**	**37,381**
Longline		*6,296*	*9,641*	*17,896*	*7,607*	*7,115*	*7,370*	*5,372*	*4,531*	*5,831*	*9,434*
Purse seine		*264*	*1,407*	*12,850*	*9,086*	*13,358*	*17,391*	*7,253*	*18,852*	*32,190*	*27,947*
Value of catch	*US$ mill*	**26**	**58**	**135**	**48**	**53**	**55**	**34**	**53**	**78**	**84**
Longline		*25*	*56*	*107*	*29*	*33*	*34*	*23*	*19*	*25*	*44*
Purse seine		*0*	*2*	*28*	*19*	*20*	*21*	*11*	*34*	*53*	*40*
National fleet[a]											
Number of vessels	*number*	**41**	**24**	**24**	**24**	**13**	**12**	**11**	**38**	**33**	**16**
Longline		*41*	*24*	*24*	*24*	*13*	*12*	*11*	*38*	*33*	*15*
Purse seine		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
Catch	*mt*	**3,058**	**3,636**	**5,382**	**1,948**	**2,032**	**1,764**	**1,820**	**3,638**	**3,985**	**5,743**
Longline		*3,058*	*3,636*	*5,382*	*1,948*	*2,011*	*1,743*	*1,799*	*3,542*	*3,891*	*3,362*
Purse seine		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2,169*
Other		*0*	*0*	*0*	*0*	*21*	*21*	*21*	*96*	*94*	*212*
Value of catch	*US$ mill*	**12**	**20**	**35**	**8**	**9**	**7**	**8**	**15**	**17**	**19**
Longline		*12*	*20*	*35*	*8*	*9*	*7*	*8*	*15*	*17*	*15*
Purse seine		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*
Other		*0*	*0*	*0*	*0*	*0.06*	*0.06*	*0.06*	*0.20*	*0.18*	*0.39*

***Notes**: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C2 Cook Islands – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	1.5	2.8	3.1	2.1	6.8	8.3	12.8	17.7	15.0	14.4
Onshore processing volumes[b]	*mt*	92	71	103	200	200	205	220	320	548	186
Employment[c]	*number*	26	31	29	24	77	65	90	84	100	82
Exports[d]	*US$ mill*										
Japan[e]		0.0	0.1	0.4	0.2	0.2	0.2	1.4	4.2	1.1	0.7
US[f]		0	0.006	0.262	0.059	0	0	0	0	0	0
Balance of payments[g]	*US$ mill*	na	na	na	2.39	2.47	2.14	2.21	4.34	4.77	4.12
Employment earnings[g]	*US$ mill*	na	na	na	1.75	1.80	1.56	1.61	3.17	3.49	3.01
Local purchases[g]	*US$ mill*	na	na	na	1.59	1.64	1.43	1.47	2.90	3.18	2.75

***Notes**: **na.** not available. **a**. 2008-12 FFA estimates. 2013 and onwards obtained in NZD from Cook Islands Government Quarterly Accounts (includes line items Fishing Licenses, Fisheries Catch Rev and Fisheries US Treaties, http://www.cookislands.gov.ck/statistics/economic-statistics/national-accounts) and coverted to USD using representative exchange rates provided by the IMF.**b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports and data reported by FFA data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **d.** This includes catch by nationally registered vessels that may not have been landed onshore. **e.** Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f.** NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html**. g.** Derived using per tonne contribution*

C3 Federated States of Micronesia - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**159,133**	**162,180**	**188,997**	**217,232**	**142,777**	**171,090**	**199,518**	**193,896**	**295,286**	**159,394**
Longline		*3,204*	*4,493*	*4,697*	*2,881*	*6,912*	*5,588*	*2,249*	*4,256*	*7,583*	*5,333*
Pole and line		*2,824*	*4,375*	*2,500*	*2,348*	*1,300*	*4,629*	*5,223*	*330*	*1,272*	*1,132*
Purse seine		*153,105*	*153,312*	*181,800*	*212,003*	*134,566*	*160,873*	*192,046*	*189,311*	*286,430*	*152,929*
Value of catch	*US$ mill*	**247**	**355**	**452**	**464**	**264**	**275**	**326**	**402**	**547**	**273**
Longline		*30*	*48*	*49*	*23*	*57*	*40*	*18*	*36*	*63*	*40*
Pole and line		*8.1*	*16.8*	*8.3*	*5.7*	*3.1*	*9.6*	*12.1*	*0.8*	*3.2*	*3*
Purse seine		*209*	*290*	*395*	*435*	*204*	*226*	*297*	*365*	*480*	*231*
National fleet[a]											
Number of vessels	*number*	**28**	**28**	**41**	**31**	**28**	**31**	**41**	**49**	**66**	**61**
Longline		*21*	*21*	*32*	*21*	*18*	*19*	*25*	*30*	*44*	*38*
Purse seine		*7*	*7*	*9*	*10*	*10*	*12*	*16*	*19*	*22*	*23*
Catch	*mt*	**24,130**	**28,785**	**38,983**	**27,054**	**42,710**	**61,207**	**77,144**	**87,521**	**118,712**	**172,940**
Longline		*1,682*	*2,280*	*2,750*	*2,872*	*4,635*	*5,464*	*5,455*	*4,084*	*7,660*	*13,670*
Purse seine		*22,448*	*26,505*	*36,233*	*24,182*	*38,075*	*55,743*	*71,689*	*83,437*	*111,052*	*159,270*
Value of catch	*US$ mill*	**45**	**70**	**105**	**72**	**94**	**105**	**139**	**184**	**243**	**323**
Longline		*16*	*23*	*27*	*21*	*36*	*35*	*34*	*31*	*55*	*89*
Purse seine		*29*	*47*	*79*	*51*	*57*	*70*	*104*	*154*	*188*	*234*

***Notes**: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C4 Federated States of Micronesia – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]		18.0	19.1	26.7	35.3	47.7	65.5	63.7	72.7	72.4	72.4
Onshore processing volumes[b]	*mt*	736	246	75	1,936	2,763	2,790	3,957	6,018	4,893	28,482
Employment[c]	*number*	373	245	198	166	245	245	383	670	670	502
Exports[d]	*US$ mill*										
Japan[e]		7.1	11.0	12.9	1.7	3.2	4.4	5.9	6.9	18.5	10.8
Thailand[f]		22	29	44	17	13	12	36	67	77	121
US[g]		2.3	0.7	0.03	0	0	0	0	0	0	0.7
Balance of payments[h]	*US$ mill*	na	na	na	25.0	38.7	51.9	74.5	80.8	112.1	166.2
Employment earnings[h]	*US$ mill*	na	na	na	1.5	2.2	2.4	4.8	3.6	6.3	10.8
Local purchases[h]	*US$ mill*	na	na	na	4.0	6.2	7.8	12.2	12.1	17.7	27.3

***Notes**: **na** not available. **a**. As provided by FAS Economic Reporting (https://www.pitiviti.org/fsm). Amount shown relates to the fiscal year completed in the given calendar year. **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary and also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data provided by FAS Economic Reporting and that collected as part of FFA data collection project. **d.** This includes catch by nationally registered vessels that may not have been landed onshore **e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. Thai customs (http://customs.go.th/index.php?view=normal). **g**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **h**. Derived using per tonne contribution*

C5 Fiji - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**9,895**	**7,333**	**6,845**	**5,472**	**7,423**	**12,180**	**10,652**	**12,144**	**8,894**	**9,318**
Longline		*8,699*	*6,876*	*6,326*	*5,312*	*7,423*	*10,160*	*9,072*	*10,949*	*8,894*	*9,192*
Pole and line		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Purse seine		*1196*	*457*	*519*	*160*	*0*	*2,019*	*1,580*	*1,195*	*0*	*125*
Value of catch	*US$ mill*	**38**	**35**	**33**	**21**	**37**	**46**	**46**	**54**	**42**	**46**
Longline		*37*	*35*	*32*	*20*	*37*	*44*	*43*	*52*	*42*	*46*
Pole and line		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Purse seine		*1.51*	*0.80*	*1.14*	*0.34*	*0.00*	*2.45*	*2.29*	*2.20*	*0.00*	*0.18*
National fleet[a]											
Number of vessels	*number*	**92**	**121**	**113**	**107**	**105**	**102**	**89**	**84**	**95**	**94**
Longline		*92*	*121*	*113*	*107*	*105*	*102*	*89*	*84*	*95*	*94*
Catch	*mt*	**12,545**	**16,307**	**14,978**	**12,782**	**13,663**	**13,085**	**14,256**	**17,145**	**13,692**	**14,844**
Longline		*12,545*	*16,307*	*14,978*	*12,782*	*13,663*	*13,085*	*14,256*	*17,145*	*13,692*	*14,844*
Pole and line		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Value of catch	*US$ mill*	**53**	**87**	**83**	**52**	**72**	**60**	**73**	**81**	**64**	**76**
Longline		*53*	*87*	*83*	*52*	*72*	*60*	*73*	*81*	*64*	*76*
Pole and line		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

***Notes**: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C6 Fiji – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	1.1	1.0	1.1	1.1	1.3	1.5	1.4	1.6	2.1	2.2
Onshore processing volumes[b]	*mt*	9,300	8,700	14,189	33,803	34,980	34,851	34,852	59,357	57,455	33,645
Employment[c]	*number*	991	1,493	1,724	2,850	2,984	3,658	4,595	4,242	4,149	3,821
Exports[d]	*US$ mill*										
EU[e]		0.0	0.1	0.4	1.6	3.6	2.5	3.2	3.5	7.2	2.5
Japan[f]		18.4	25.1	33.7	17.8	18.8	27.2	21.0	23.6	10.6	12.6
US[g]		76.9	28.6	72.2	66.9	60.5	69.3	74.3	72.7	76.5	74.4
Balance of payments[h]	*US$ mill*	na	na	na	26.6	27.3	26.6	28.0	38.0	37.9	30.9
Employment earnings[h]	*US$ mill*	na	na	na	17.9	18.3	17.7	18.8	24.5	21.6	17.8
Local purchases[h]	*US$ mill*	na	na	na	23.5	24.2	24.0	24.9	34.4	32.8	23.1

***Notes: na**. not available. **a.** FFA estimates. **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports and data reported by FFA data collector where appropriate **c**. Includes harvest, processing and ancillary services sectors,observers and government employees (artisinal sector not included. Based on data collected as part of FFA data collection project. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. EuroStats (http://ec.europa.eu/eurostat/data/database). **f.** Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **g.** NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html. **h.** Derived using per tonne contribution*

C7 Kiribati - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**204,765**	**214,213**	**554,939**	**296,506**	**733,068**	**645,914**	**410,467**	**384,800**	**401,167**	**719,735**
Longline		*11,518*	*12,154*	*16,629*	*11,698*	*24,599*	*24,314*	*18,621*	*2,645*	*836*	*3,373*
Pole and line		*192*	*35*	*295*	*1,066*	*273*	*240*	*0*	*0*	*0*	*0*
Purse seine		*180,088*	*189,457*	*528,032*	*279,384*	*703,837*	*617,001*	*387,488*	*377,796*	*395,973*	*712,003*
Other		*12,967*	*12,567*	*9,982*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*
Value of catch	*US$ mill*	**356**	**484**	**1347**	**695**	**1261**	**940**	**694**	**726**	**681**	**1064**
Longline		*104*	*128*	*168*	*96*	*197*	*163*	*123*	*20*	*7*	*21*
Pole and line		*0.3*	*0.1*	*0.7*	*2.5*	*0.4*	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*
Purse seine		*235*	*334*	*1157*	*587*	*1057*	*771*	*564*	*697*	*666*	*1036*
Other		*17*	*23*	*22*	*10*	*7*	*6*	*7*	*8*	*8*	*7*
National fleet[a]											
Number of vessels	*number*	**5**	**7**	**13**	**16**	**20**	**35**	**44**	**26**	**30**	**46**
Longline		*1*	*1*	*4*	*4*	*6*	*14*	*17*	*7*	*9*	*24*
Purse seine		*4*	*6*	*9*	*12*	*14*	*21*	*27*	*19*	*21*	*22*
Catch	*mt*	**38,947**	**59,611**	**74,053**	**77,782**	**114,156**	**142,623**	**169,593**	**157,890**	**193,749**	**211,953**
Longline		*73*	*495*	*1,450*	*797*	*383*	*1,327*	*1,744*	*1,393*	*998*	*3,429*
Pole and line		*160*	*35*	*243*	*385*	*240*	*240*	*0*	*0*	*0*	*0*
Purse seine		*25,747*	*46,514*	*62,378*	*72,241*	*109,174*	*136,697*	*163,490*	*152,138*	*188,392*	*204,165*
Other		*12,967*	*12,567*	*9,982*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*	*4,359*
Value of catch	*US$ mill*	**51**	**109**	**170**	**170**	**176**	**184**	**256**			
Longline		*0.24*	*3.53*	*12.83*	*7.05*	*3.23*	*8.55*	*11.59*	*7.41*	*6.84*	*21.41*
Pole and line		*0.20*	*0.06*	*0.53*	*0.81*	*0.35*	*0.29*	*0.00*	*0.00*	*0.00*	*0.00*
Purse seine		*33*	*82*	*135*	*153*	*165*	*169*	*237*	*279*	*317*	*296*
Troll		*17*	*23*	*22*	*10*	*7*	*6*	*7*	*8*	*8*	*7*

Notes: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.

C8 Kiribati – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	38	30	60	86	128	149	107	130	127	146
Onshore processing volumes[b]	*mt*	0	0	31	200	200	395	373	373	373	1,719
Employment[c]	*number*	256	337	477	620	980	980	1,053	1,118	1,171	1,252
Exports[d]	*US$ mill*										
Japan[e]		5.7	10.4	11.7	4.5	12.3	7.1	7.2	9.6	8.5	7.7
Thailand[f]		10.1	25.6	35.9	56.6	40.5	85.1	91.7	108.8	88.1	82.8
US[g]		0	0	0	0	0.5	1.0	2.1	2.2	1.4	1.3
Balance of payments[h]	*US$ mill*	na	na	na	0.2	0.2	0.9	0.9	1.7	1.2	4.2
Employment earnings[h]	*US$ mill*	na	na	na	1.0	1.4	2.2	2.5	2.9	3.0	5.3
Local purchases[h]	*US$ mill*	na	na	na	0.2	0.2	0.6	0.6	1.1	0.8	2.8

***Notes**: **na** not available. **a**. 2008-19, Ministry of Finance & Economic Development, Kiribati National Statisctic Office. Obtained in AUD and converted to USD using representative exchange rates provided by the IMF for given year. **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports and data reported by FFA data collector where appropriate. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Data sourced primarily from the Ministry of Fisheries and Marine Resource Development and the Kiribati Fish Limited and data reported by FFA data collector. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. Thai customs (http://customs.go.th/index.php?view=normal). **g**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **h**. Derived using per tonne contribution.*

C9 Marshall Islands - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**26,130**	**25,585**	**32,385**	**45,859**	**86,073**	**38,266**	**90,028**	**32,800**	**37,589**	**16,150**
Longline		*3,892*	*3,638*	*4,186*	*4,239*	*5,285*	*4,465*	*3,282*	*4,600*	*4,185*	*4,600*
Pole and line		*4,735*	*262*	*4,533*	*2,047*	*3,434*	*1,982*	*626*	*604*	*2,573*	*4,293*
Purse seine		*17,503*	*21,685*	*23,665*	*39,572*	*77,355*	*31,819*	*86,119*	*27,596*	*30,831*	*7,257*
Value of catch	*US$ mill*	**73**	**77**	**109**	**125**	**168**	**79**	**153**	**89**	**95**	**55**
Longline		*37*	*38*	*43*	*37*	*44*	*33*	*27*	*37*	*36*	*35*
Pole and line		*13.6*	*1.0*	*15.0*	*5.0*	*8.2*	*4.1*	*1.4*	*1.5*	*6.6*	*10.0*
Purse seine		*23*	*38*	*51*	*83*	*116*	*42*	*125*	*51*	*52*	*11*
National fleet[a]											
Number of vessels	*number*	**14**	**14**	**14**	**16**	**12**	**12**	**34**	**41**	**36**	**33**
Longline		*4*	*4*	*4*	*4*	*0*	*0*	*24*	*31*	*26*	*22*
Purse seine		*10*	*10*	*10*	*12*	*12*	*12*	*10*	*10*	*10*	*11*
Catch	*mt*	**57,225**	**90,544**	**72,422**	**77,768**	**75,896**	**86,869**	**61,786**	**67,010**	**74,567**	**98,346**
Longline		*391*	*362*	*465*	*134*	*0*	*0*	*1,306*	*2,225*	*1,900*	*2,750*
Purse seine		*56,834*	*90,182*	*71,957*	*77,634*	*75,896*	*86,869*	*60,480*	*64,785*	*72,667*	*95,596*
Value of catch	*US$ mill*	**77**	**162**	**161**	**165**	**114**	**107**	**98**	**137**	**139**	**161**
Longline		*3.7*	*3.6*	*4.8*	*1.2*	*0.0*	*0.0*	*10.7*	*18.0*	*16.4*	*20.7*
Purse seine		*74*	*159*	*156*	*164*	*114*	*107*	*88*	*119*	*122*	*141*

***Notes*: a**. *Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C10 Marshall Islands – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	3.5	5.3	9.6	12.9	17.3	27.4	31.5	33.1	32.2	33.0
Onshore processing volumes[b]	*mt*	7,177	9,543	5,398	11,960	13,946	10,460	9,839	7,183	8,318	15,118
Employment[c]	*number*	1,259	1,155	1,181	1,123	1,329	1,424	754	754	761	1,259
Exports[d]	*US$ mill*										
Japan[e]		9.8	9.0	8.4	3.2	25.3	20.1	9.1	6.1	2.8	3.4
Thailand[f]		38.4	92.0	81.8	74.1	39.2	22.8	31.1	24.5	28.8	38.4
US[g]		5.0	10.5	12.3	9.9	8.4	7.1	4.6	3.3	3.4	3.9
Balance of payments[h]	*US$ mill*	na	na	na	75.5	76.6	75.8	57.4	61.7	69.3	89.7
Employment earnings[h]	*US$ mill*	na	na	na	6.4	8.3	5.3	4.2	4.4	5.0	5.5
Local purchases[h]	*US$ mill*	na	na	na	14.8	16.3	13.9	11.0	11.5	12.9	16.0

***Notes : na** not available. **a**. 2008-19 FAS Economic Reporting (https://pitiviti.org/marshall-islands). Amount shown relates to the fiscal year completed in the given calendar year. 2019 data sourced from 2019 MIMRA Audit Report **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary and also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees. Based on data provided by FAS Economic Reporting and that collected as part of FFA data collection project; artisinal sector not included. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. Thai customs (http://customs.go.th/index.php?view=normal). **g**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **h**. Derived using per tonne contribution.*

C11 Nauru - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**109,251**	**103,106**	**50,425**	**161,128**	**180,092**	**68,552**	**114,968**	**82,601**	**171,785**	**107,217**
Longline		*86*	*163*	*214*	*162*	*277*	*67*	*17*	*1*	*1*	*75*
Purse seine		*109,161*	*102,931*	*50,200*	*160,947*	*179,795*	*68,466*	*114,932*	*82,580*	*171,767*	*107,135*
Troll		*4*	*11*	*11*	*19*	*19*	*19*	*19*	*19*	*17*	*7*
Value of catch	*US$ mill*	**145**	**182**	**111**	**340**	**271**	**88**	**170**	**153**	**289**	**158**
Longline		*0.77*	*1.7*	*1.9*	*1.2*	*2.3*	*0.4*	*0.1*	*0.01*	*0.01*	*0.5*
Purse seine		*144*	*180*	*109*	*339*	*269*	*88*	*170*	*153*	*289*	*157*
Troll		*0.01*	*0.02*	*0.03*	*0.04*	*0.03*	*0.03*	*0.03*	*0.04*	*0.03*	*0.01*
National fleet											
Catch	*mt*	**4**	**11**	**11**	**19**	**19**	**19**	**19**	**19**	**8,880**	**24,892**
Purse seine										*8,863*	*24,885*
Troll		*4*	*11*	*11*	*19*	*19*	*19*	*19*	*19*	*17*	*7*
Value of catch	*US$ mill*	**0.006**	**0.021**	**0.026**	**0.043**	**0.033**	**0.029**	**0.030**	**0.038**	**15.0**	**37.3**
Purse seine										*15.0*	*37.3*
Troll		*0.006*	*0.021*	*0.026*	*0.043*	*0.033*	*0.029*	*0.030*	*0.038*	*0.031*	*0.013*

***Notes**: a. Domestic small troll commercial/artisanal boats*

C12 Nauru – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	12.1	14.1	10.9	11.5	17.0	21.7	27.8	36.0	34.7	46.7
Employment[b]	*number*	5	na	na	na	85	85	85	85	85	85

***Notes**: **na** not available. **a**. 2008-11 FFA estimates. 2012 and onwards IMF Country Report No. 20/31 (https://www.imf.org/en/Publications/CR/Issues/2020/01/29/Republic-of-Nauru-2019-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-49001). Obtained in AUD and converted to USD using representative exchange rates provided by the IMF for given year. **b**. Includes harvest sector, observers and government employees. Nauru Fisheries Authority and others. Artisinal sector not included.*

C13 Niue - Catch and catch values

	Units	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
National waters											
Catch	*mt*	**223**	**0**	**0**	**420**	**283**	**282**	**108**	**18**	**423**	**539**
Longline		*223*	*0*	*0*	*420*	*283*	*282*	*108*	*18*	*423*	*539*
Value of catch	*US$ mill*	**0.7**	**0.0**	**0.0**	**1.4**	**1.2**	**1.2**	**0.4**	**0.1**	**1.6**	**2.4**
Longline		*0.7*	*0.0*	*0.0*	*1.4*	*1.2*	*1.2*	*0.4*	*0.1*	*1.6*	*2.4*
National fleet[a]											
Number of vessels	*number*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Longline		*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Catch	*mt*	**110**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Longline		*110*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Value of catch		**0.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Longline		*0.4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

Notes: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports.

C14 Niue – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	0.4	0.3	0.4	1.3	1.3	0.8	0.9	1.0	1.2	1.2
Employment[b]	*number*	**na**	**na**	**na**	**na**	4	4	4	4	4	4

***Notes** : **na** not available. **a**. FFA estimates. **b**. Includes government employees. Various sources including pers. comm James Tafatu, Niue Principal Fisheries Officer; artisinal sector not included.*

C15 Palau - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**2,923**	**2,898**	**3,899**	**3,183**	**4,902**	**1,534**	**5,963**	**19,958**	**11,430**	**6,620**
Longline		*2,577*	*2,898*	*3,159*	*2,873*	*2,198*	*1,349*	*2,821*	*6,750*	*6,630*	*3,943*
Pole and line		*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Purse seine		*346*	*0*	*738*	*310*	*2,704*	*185*	*3,142*	*13,207*	*4,800*	*2,676*
Value of catch	*US$ mill*	**24**	**31**	**35**	**26**	**24**	**10**	**28**	**84**	**65**	**33**
Longline		*24*	*31*	*34*	*25*	*19*	*10*	*23*	*57*	*56*	*29*
Pole and line		*0*	*0*	*0.01*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Purse seine		*1*	*0*	*2*	*1*	*5*	*0.25*	*5*	*27*	*8*	*4*
National fleet[a]											
Number of vessels	*number*	**59**	**79**	**50**	**54**	**41**	**30**	**33**	**37**	**38**	**41**
Longline		*59*	*79*	*50*	*54*	*41*	*30*	*33*	*37*	*38*	*41*
Catch	*mt*	**2,309**	**2,433**	**2,054**	**1,844**	**1,343**	**952**	**1,749**	**2,507**	**2,942**	**2,671**
Longline		*2,309*	*2,433*	*2,054*	*1,844*	*1,343*	*952*	*1,749*	*2,507*	*2,942*	*2,671*
Value of catch	*US$ mill*	**21**	**24**	**21**	**17**	**11**	**7**	**14**	**20**	**25**	**20**
Longline		*21*	*24*	*21*	*17*	*11*	*7*	*14*	*20*	*25*	*20*

***Notes**: **a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables*

C16 Palau – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	0.2	0.8	0.4	0.9	3.2	6.2	5.5	9.3	8.5	9.5
Onshore processing volumes[b]	*mt*	628	2,226	2,170	2,083	1,792	970	1,828	**na**	**na**	**na**
Employment[c]	*number*	42	118	104	44	46	46	46	**na**	**na**	**na**
Exports[d]	*US$ mill*										
Japan[e]		15.9	18.1	23.2	15.9	13.7	7.7	15.4	19.4	19.1	13.3
US[f]		0	0	0	0	0	0.02	0.15	0.15	0.24	0.17
Balance of payments[g]	*US$ mill*	na	na	na	4.2	3.6	3.9	7.4	10.1	11.9	10.1
Employment earnings[g]	*US$ mill*	na	na	na	1.4	1.2	1.3	2.4	3.3	3.9	3.3
Local purchases[g]	*US$ mill*	na	na	na	1.5	1.3	1.4	2.6	3.6	4.2	3.6

***Notes**: **na** not available. **a**. As provided by FAS Economic Reporting (https://pitiviti.org/palau). Amount shown relates to the fiscal year completed in the given calendar year. **b**. The volume processed refers only to longline / purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary and also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html).**g**. Derived using per tonne contribution*

C17 Papua New Guinea - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**733,755**	**627,668**	**589,599**	**591,150**	**338,913**	**187,542**	**339,918**	**383,267**	**371,861**	**353,932**
Longline		*3,097*	*2,938*	*4,306*	*1,352*	*1,989*	*2,131*	*6,199*	*6,394*	*8,112*	*6,416*
Purse seine		*730,658*	*624,730*	*585,293*	*589,798*	*336,924*	*185,411*	*333,719*	*376,873*	*363,749*	*347,516*
Value of catch	*US$ mill*	**1,045**	**1,190**	**1,325**	**1,254**	**547**	**270**	**555**	**765**	**694**	**570**
Longline		*21*	*25*	*34*	*10*	*14*	*12*	*37*	*42*	*56*	*38*
Purse seine		*1,023*	*1,165*	*1,292*	*1,244*	*533*	*258*	*518*	*724*	*638*	*532*
National fleet[a]											
Number of vessels	*number*	**67**	**74**	**78**	**66**	**67**	**73**	**82**	**89**	**70**	**64**
Longline		*19*	*25*	*27*	*15*	*12*	*20*	*15*	*22*	*14*	*14*
Purse seine		*48*	*49*	*51*	*51*	*55*	*53*	*67*	*67*	*56*	*50*
Catch	*mt*	**208,253**	**164,557**	**240,055**	**194,301**	**236,823**	**215,720**	**288,982**	**304,478**	**313,870**	**267,291**
Longline		*3,069*	*2,674*	*3,892*	*1,334*	*1,943*	*1,252*	*896*	*1,987*	*2,355*	*1,902*
Purse seine		*205,184*	*161,883*	*236,163*	*192,967*	*234,880*	*214,468*	*288,086*	*302,491*	*311,515*	*265,389*
Value of catch	*US$ mill*	**291**	**312**	**550**	**422**	**375**	**283**	**432**	**580**	**557**	**412**
Longline		*21*	*23*	*31*	*10*	*14*	*8*	*7*	*12*	*19*	*12*
Purse seine		*270*	*289*	*519*	*412*	*360*	*275*	*425*	*568*	*539*	*400*

***Notes: a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C18 Papua New Guinea – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	55.1	62.1	71.3	84.3	92.0	95.7	119.5	94.1	114.4	133.1
Onshore processing volumes[b]	*mt*	49,879	51,545	63,214	66,673	67,181	66,490	65,318	85,000	87,272	107,250
Employment[c]	*number*	7,086	7,295	8,329	8,964	9,490	9,549	10,454	10,901	11,025	12,479
Exports[d]	*US$ mill*										
EU[e]		33.5	59.7	95.0	131.8	90.3	107.7	107.2	169.2	189.9	216.2
Japan[f]		4.2	11.5	13.9	4.5	6.4	4.7	7.3	15.8	13.8	2.4
Thailand[g]		18.0	19.9	32.4	9.8	20.7	63.6	124.5	123.5	135.8	70.1
US[h]		12.7	12.8	5.7	5.6	0.2	0	0	0	0	0
Balance of payments[i]	*US$ mill*	na	na	na	319.5	320.5	321.7	320.2	346.5	358.1	304.6
Employment earnings[i]	*US$ mill*	na	na	na	8.9	9.2	9.6	9.1	11.1	11.8	9.9
Local purchases[i]	*US$ mill*	na	na	na	55.7	56.1	56.5	56.0	61.3	63.6	54.0

***Notes: na** not available. **a**. 2008-14, FFA estimates. 2015-19, PNG National Fisheries Authority (NFA). **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary and also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. EuroStats (http://ec.europa.eu/eurostat/data/database). **f**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **g**. Thai customs (http://customs.go.th/index.php?view=normal). **h**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **i**. Derived using per tonne contribution.*

C19 Samoa - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**3,351**	**2,749**	**3,250**	**2,051**	**1,352**	**2,314**	**3,463**	**2,353**	**1,843**	**888**
Longline		*3,090*	*1,932*	*2,352*	*2,020*	*1,091*	*1,160*	*1,077*	*2,192*	*1,770*	*883*
Purse seine		*261*	*817*	*899*	*31*	*261*	*1,154*	*2,386*	*160*	*73*	*4*
Value of catch	*US$ mill*	**11.6**	**10.2**	**11.9**	**7.3**	**5.0**	**6.2**	**7.9**	**9.5**	**7.9**	**4.0**
Longline		*11.2*	*8.8*	*10.0*	*7.2*	*4.6*	*4.8*	*4.4*	*9.2*	*7.8*	*4.0*
Purse seine		*0.4*	*1.4*	*1.9*	*0.07*	*0.4*	*1.4*	*3.5*	*0.3*	*0.1*	*0.01*
National fleet[a]											
Number of vessels	*number*	**50**	**46**	**36**	**39**	**42**	**53**	**68**	**61**	**51**	**18**
Longline		*50*	*46*	*36*	*39*	*42*	*53*	*68*	*61*	*51*	*18*
Catch	*mt*	**3,090**	**1,932**	**2,353**	**2,022**	**1,102**	**1,160**	**1,266**	**3,230**	**2,191**	**1,731**
Longline		*3,090*	*1,932*	*2,353*	*2,022*	*1,102*	*1,160*	*1,266*	*3,230*	*2,191*	*1,731*
Value of catch	*US$ mill*	**11**	**9**	**10**	**7**	**5**	**5**	**5**			
Longline		*11*	*9*	*10*	*7*	*5*	*5*	*5*	*14*	*10*	*8*

***Notes: a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C20 Samoa – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	0.7	0.6	0.5	0.8	0.9	1.0	1.0	1.4	1.3	1.1
Onshore processing volumes[b]	*mt*	4,261	1,873	2,725	2,209	1,344	1,329	5,702	7,284	5,107	5,539
Employment[c]	*number*	414	395	415	325	327	327	387	273	246	346
Exports[d]	*US$ mill*										
Japan[e]		0.021	0.014	0.023	0.005	0	0.757	0.592	0.229	0.062	0
US[f]		0.34	0.34	0.18	0.01	0.00	0.52	0.73	0.45	0.63	0.30
Balance of payments[g]	*US$ mill*	na	na	na	2.4	1.4	4.9	4.1	5.8	5.7	5.4
Employment earnings[g]	*US$ mill*	na	na	na	0.7	0.4	1.6	1.2	1.6	1.6	1.6
Local purchases[g]	*US$ mill*	na	na	na	0.5	0.3	1.7	1.2	1.5	1.6	1.6

***Notes: na** not available. **a**. FFA estimates. **b**. The volume processed refers only to longline/purse seine catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary and also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **g**. Derived using per tonne contribution*

C21 Solomon Islands - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**182,229**	**176,261**	**97,738**	**130,020**	**89,766**	**132,610**	**162,277**	**172,806**	**90,791**	**76,700**
Longline		*19,218*	*15,032*	*18,313*	*16,993*	*30,295*	*31,119*	*9,470*	*13,583*	*19,893*	*15,603*
Pole and line		*0*	*871*	*2,135*	*1,666*	*1,532*	*812*	*1,453*	*1,127*	*1,080*	*1,121*
Purse seine		*163,012*	*160,358*	*77,289*	*111,361*	*57,939*	*100,679*	*151,354*	*158,096*	*69,818*	*59,976*
Value of catch	*US$ mill*	**330**	**388**	**291**	**322**	**264**	**313**	**289**	**377**	**250**	**190**
Longline		*116*	*100*	*118*	*83*	*170*	*180*	*56*	*81*	*127*	*95*
Pole and line		*0*	*1.5*	*4.6*	*3.5*	*2.3*	*1.0*	*2.7*	*2.1*	*1.8*	*1.7*
Purse seine		*214*	*286*	*169*	*235*	*92*	*132*	*230*	*294*	*121*	*93*
National fleet[a]											
Number of vessels	*number*	**146**	**144**	**143**	**134**	**144**	**155**	**8**	**10**	**51**	**62**
Longline		*132*	*130*	*128*	*122*	*137*	*147*	*0*	*0*	*41*	*51*
Purse seine		*14*	*14*	*15*	*12*	*7*	*8*	*8*	*10*	*10*	*11*
Catch	*mt*	**40,099**	**46,011**	**41,854**	**42,941**	**62,034**	**61,580**	**56,483**	**46,767**	**60,754**	**75,383**
Longline		*27,134*	*19,579*	*13,249*	*16,506*	*30,077*	*31,976*	*0*	*0*	*7,682*	*10,094*
Pole and line		*0*	*871*	*2,135*	*1,666*	*1,532*	*811*	*711*	*1,055*	*1,080*	*1,121*
Purse seine		*12,965*	*25,561*	*26,470*	*24,769*	*30,425*	*28,793*	*55,772*	*45,712*	*51,992*	*64,168*
Value of catch	*US$ mill*	**121**	**131**	**144**	**127**	**217**	**227**	**84**	**88**	**147**	**166**
Longline		*104*	*82*	*80*	*70*	*165*	*187*	*0*	*0*	*55*	*65*
Pole and line		*0.0*	*1.5*	*4.6*	*3.5*	*2.3*	*1.0*	*1.0*	*2.0*	*1.8*	*1.7*
Purse seine		*17*	*47*	*59*	*53*	*49*	*39*	*83*	*86*	*90*	*99*

***Notes: a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C22 Solomon Islands – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	19.1	23.5	22.6	23.4	29.0	39.5	33.6	45.1	47.1	44.1
Onshore processing volumes[b]	*mt*	15,558	19,700	12,796	24,789	40,487	28,501	24,239	18,691	20,819	28,231
Employment[c]	*number*	1,004	1,758	1,991	2,020	2,394	2,364	2,683	3,101	3,263	3,240
Exports[d]	*US$ mill*										
EU[e]		12.0	27.0	32.7	33.1	49.4	46.8	35.2	44.2	58.0	62.4
Japan[f]		0.9	1.5	2.7	3.4	4.8	0.8	2.2	2.4	5.0	3.0
Thailand[g]		16.1	26.4	21.7	20.5	9.9	11.6	14.5	29.3	26.9	36.6
US[h]		0	0	0	1.10	0.48	0	0	0.07	3.11	3.69
Balance of payments[i]	*US$ mill*	na	na	na	55.5	68.0	69.2	46.9	38.4	54.1	69.1
Employment earnings[j]	*US$ mill*	na	na	na	6.0	9.8	10.3	11.7	13.5	14.2	14.1
Local purchases[i]	*US$ mill*	na	na	na	13.7	16.6	16.9	10.3	8.4	12.2	15.7

***Notes: na**. not available. **a**. 2010-12, FFA estimates.2013-19, Government of the Solomon Islands Final Budget Outcome 2019 (and earlier) provided in SBD and converted to USD using IMF exchange rate. **b**. The volume processed refers only to the purse seine and longline catch processed to some form domestically onshore or on board vessels; excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary; also from data collector. **c**. Based on data collected as part of FFA data collection project. **d**. This includes catch by nationally registered vessels that may not have been landed onshore. **e**. EuroStats (http://ec.europa.eu/eurostat/data/database). **f**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **g**. Thai customs (http://customs.go.th/index.php?view=normal). **h**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **i**. Derived using per tonne contribution. **j.** FFA estimates*

C23 Tokelau - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**4,018**	**19,659**	**21,074**	**15,798**	**27,626**	**46,870**	**8,680**	**35,907**	**39,066**	**7,852**
Longline		*0*	*491*	*773*	*1*	*153*	*2,527*	*3,461*	*2,510*	*871*	*1,995*
Purse seine		*4,014*	*19,164*	*20,072*	*15,619*	*27,386*	*44,164*	*5,040*	*33,330*	*38,140*	*5,790*
Troll		*4*	*4*	*229*	*177*	*86*	*179*	*179*	*67*	*55*	*67*
Value of catch	*US$ mill*	**5**	**37**	**50**	**33**	**42**	**65**	**24**	**71**	**68**	**18**
Longline		*0*	*4.2*	*6.3*	*0.013*	*1.3*	*12*	*16*	*11*	*4.1*	*9.0*
Purse seine		*5.1*	*33*	*43*	*33*	*40*	*53*	*7.3*	*60*	*64*	*8.5*
Troll		*0.00*	*0.01*	*0.52*	*0.39*	*0.13*	*0.25*	*0.27*	*0.13*	*0.10*	*0.11*
National fleet[a]											
Catch	*mt*	**4**	**4**	**229**	**177**	**86**	**179**	**179**	**67**	**55**	**67**
Troll		*4*	*4*	*229*	*177*	*86*	*179*	*179*	*67*	*55*	*67*
Value of catch	*US$ mill*	**0.00**	**0.01**	**0.52**	**0.39**	**0.13**	**0.25**	**0.27**	**0.13**	**0.10**	**0.11**
Troll		*0.005*	*0.007*	*0.52*	*0.39*	*0.13*	*0.25*	*0.27*	*0.13*	*0.10*	*0.11*

Notes: **a**. National fleet consists solely of inshore troll vessels as Tokelau is not a flag state.

C24 Tokelau – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	1.0	1.2	3.1	6.4	9.1	11	16	13	14	14
Employment[b]	*number*	8	na	na	na	6	6	6	6	6	7

Notes: na *not available.* ***a****. 2008-10 FFA estimates. 2011-14 Pers. Comm. Feleti Tulafono, Department of Economic Development, Natural Resources & Environment, Feb 2016. 2015-19 Country Presentation: Tokelau, Fishing Revenue Forecasting and Management Workshop, Honiara, August 28 2019* ***b****. Includes observers and government employees (artisinal sector not included). Pers. comm. Feleti Tulafono.*

C25 Tonga - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**128**	**243**	**1,345**	**2,344**	**740**	**1,736**	**2,817**	**1,842**	**1,190**	**2,141**
Longline		*128*	*243*	*1,345*	*2,329*	*740*	*1,641*	*2,118*	*1,552*	*1,190*	*2,141*
Purse seine		*0*	*0*	*0*	*15*	*0*	*95*	*699*	*289*	*0*	*0*
Value of catch	*US$ mill*	**0.8**	**2.0**	**8.2**	**11**	**4.6**	**9.1**	**12**	**9.6**	**6.3**	**12**
Longline		*0.8*	*2.0*	*8.2*	*11*	*4.6*	*9.0*	*11*	*9.0*	*6.3*	*12*
Purse seine		*0*	*0*	*0*	*0.03*	*0*	*0.12*	*1.02*	*0.54*	*0*	*0*
National fleet[a]											
Number of vessels	*number*	**5**	**4**	**4**	**3**	**4**	**4**	**4**	**6**	**5**	**6**
Longline		*5*	*4*	*4*	*3*	*4*	*4*	*4*	*6*	*5*	*6*
Catch	*mt*	**128**	**224**	**171**	**147**	**250**	**357**	**397**	**435**	**262**	**235**
Longline		*128*	*224*	*171*	*147*	*250*	*357*	*397*	*435*	*262*	*235*
Value of catch	*US$ mill*	**0.8**	**1.9**	**1.5**	**1.1**	**1.9**	**2.5**	**2.9**	**3.2**	**2.1**	**1.6**
Longline		*0.8*	*1.9*	*1.5*	*1.1*	*1.9*	*2.5*	*2.9*	*3.2*	*2.1*	*1.6*

Notes: a. *Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C26 Tonga – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	0.3	0.3	0.8	1.3	0.9	0.9	1.3	1.6	1.4	1.6
Onshore processing volumes[b]	*mt*	66	207	123	147	250	357	1,913	1,570	856	2,917
Employment[c]	*number*	66	54	45	45	148	142	255	273	273	309
Exports[d]	*US$ mill*										
Japan[e]		0.1	0.5	0.3	0.4	1.1	0.9	1.0	1.3	0.8	0.5
US[f]		0.08	0.11	0.01	0.01	0.04	0.19	0.27	0.29	0.03	0.04
Balance of payments[g]	*US$ mill*	na	na	na	1.28	0.73	2.03	2.45	2.48	1.45	2.29
Employment earnings[g]	*US$ mill*	na	na	na	0.10	0.17	0.47	0.52	0.57	0.35	0.31
Local purchases[g]	*US$ mill*	na	na	na	0.10	0.18	0.51	0.57	0.62	0.37	0.34

***Notes: na** not available. **a**. FFA estimates. **b**. The volume processed refers only to the purse seine and longline catch processed to some form domestically onshore or on board vessels;excludes volumes transhipped or delivered directly to offshore canneries. Data sourced primarily from CES but adjusted using SC annual reports where necessary; also from data collector. **c**. Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **d**.This includes catch by nationally registered vessels that may not have been landed onshore.**e**. Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **f**. NMFS (http://www.st.nmfs.noaa.gov/st1/trade/monthly_data/TradeDataCountryMonth.html). **g**. Derived using per tonne contribution*

C27 Tuvalu - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**67,946**	**61,098**	**71,049**	**54,515**	**98,930**	**76,971**	**121,591**	**57,592**	**90,002**	**118,338**
Longline		*2,856*	*1,717*	*2,280*	*2,490*	*1,917*	*1,555*	*6,019*	*4,135*	*3,317*	*4,740*
Pole and line		*0*	*0*	*0*	*0*	*273*	*0*	*5*	*3*	*0*	*0*
Purse seine		*65,062*	*56,567*	*65,650*	*51,948*	*96,524*	*75,328*	*115,219*	*53,106*	*86,336*	*113,250*
Troll		*28*	*2,814*	*3,119*	*77*	*217*	*87*	*348*	*348*	*348*	*348*
Value of catch	*US$ mill*	**104**	**117**	**165**	**121**	**156**	**101**	**205**			
Longline		*21*	*14*	*17*	*12*	*13*	*9*	*38*	*26*	*22*	*29*
Pole and line		*0*	*0*	*0*	*0*	*0.7*	*0*	*0.01*	*0.01*	*0*	*0*
Purse seine		*83*	*99*	*141*	*109*	*142*	*92*	*166*	*97*	*144*	*165*
Troll		*0.04*	*5.1*	*6.9*	*0.2*	*0.3*	*0.1*	*0.5*	*0.7*	*0.6*	*0.6*
National fleet[a]											
Number of vessels	*number*	**1**	**7**	**7**	**3**	**3**	**3**	**3**	**4**	**3**	**2**
Longline		*0*	*6*	*6*	*2*	*2*	*2*	*2*	*2*	*2*	*1*
Purse seine		*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*
Catch	*mt*	**10,582**	**10,806**	**16,469**	**11,896**	**6,355**	**5,129**	**6,604**	**6,431**	**11,695**	**5,522**
Longline		*0*	*575*	*2296*	*403*	*195*	*456*	*282*	*457*	*304*	*220*
Purse seine		*10,554*	*7,417*	*11,054*	*11,416*	*5,943*	*4,586*	*5,974*	*5,626*	*11,043*	*4,954*
Troll		*28*	*2,814*	*3,119*	*77*	*217*	*87*	*348*	*348*	*348*	*348*
Value of catch	*US$ mill*	**14**	**22**	**52**	**27**	**10**	**9**	**11**			
Longline		*0*	*4.3*	*21*	*2.5*	*1.2*	*3.0*	*2.0*	*2.8*	*1.9*	*1.2*
Purse seine		*14*	*13*	*24*	*24*	*8.9*	*5.6*	*8.6*	*10*	*19*	*7.3*
Troll		*0.04*	*5.1*	*6.9*	*0.2*	*0.3*	*0.1*	*0.5*	*0.7*	*0.6*	*0.6*

Notes: a. *Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*

C28 Tuvalu – Economic contribution

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Licence and access fee revenue[a]	*US$ mill*	6.6	9.4	8.7	17.5	14.4	22.9	23.8	19.6	37.6	27.7
Employment[b]	*number*	242	239	283	408	449	185	188	124	124	125
Exports[c]	*US$ mill*										
Japan[d]		1.2	3.7	10.1	3.5	2.7	1.9	2.0	2.0	2.2	1.0
Thailand[e]		11.5	7.6	7.1	18.2	1.8	3.3	6.7	4.8	16.9	11.4

***Notes: na** not available. **a.** 2008-12, IMF Article IV Consul tation Reports (2016 and earlier, (https://www.imf.org/en/Publ ications/CR/Issues/2016/12/31/Tuvalu-Staff-Report-for-the-2012-Article-IV-Consul tation-26238). 2013-16, Government of Tuvalu, 2017 (and earlier) Tuvalu National Budget (http://www.tuvaluaudi t.tv/), 2018, country Presentation: Tokelau, Fishing Revenue Forecasting and Management Workshop, Honiara, August 28 2019, 2019, Tuvalu Annual Report 2019. Obtained in AUD and converted to USD using the representative exchange rates provided by the IMF for given year. **b.** Includes harvest, processing and ancillary services sectors, observers and government employees (artisinal sector not included). Based on data collected as part of FFA data collection project. **c.**This includes catch by nationally registered vessels that may not have been landed onshore. **d.** Japan Customs (https://www.customs.go.jp/toukei/info/index.htm) (excludes frozen whole tuna). **e.** Thai customs (http://customs.go.th/index.php?view=normal).*

C29 Vanuatu - Catch and catch values

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National waters											
Catch	*mt*	**3,800**	**8,716**	**6,186**	**8,536**	**6,886**	**6,043**	**8,851**	**11,488**	**7,014**	**6,150**
Longline		*3,800*	*8,653*	*5,979*	*8,536*	*6,886*	*5,990*	*8,851*	*11,488*	*7,014*	*6,150*
Purse seine		*0*	*63*	*206*	*0*	*0*	*53*	*0*	*0*	*0*	*0*
Value of catch	*US$ mill*	**15**	**42**	**31**	**30**	**27**	**24**	**35**	**50**	**30**	**29**
Longline		*15*	*41*	*30*	*30*	*27*	*24*	*35*	*50*	*30*	*29*
Purse seine		*0*	*0.1*	*0.4*	*0*	*0*	*0.1*	*0*	*0*	*0*	*0*
National fleet[a]											
Number of vessels	*number*	**83**	**102**	**106**	**77**	**85**	**76**	**52**	**52**	**71**	**45**
Longline		*65*	*75*	*84*	*61*	*82*	*73*	*49*	*49*	*69*	*40*
Purse seine		*18*	*27*	*22*	*16*	*3*	*3*	*3*	*3*	*2*	*5*
Catch	*mt*	**38,865**	**34,792**	**37,654**	**34,327**	**32,343**	**27,663**	**13,680**	**18,504**	**24,002**	**42,319**
Longline		*15,145*	*11,410*	*12,990*	*14,227*	*11,829*	*19,319*	*9,286*	*11,659*	*11,500*	*8,854*
Purse seine		*23,720*	*23,382*	*24,664*	*20,100*	*20,514*	*8,344*	*4,394*	*6,845*	*12,502*	*33,465*
Value of catch	*US$ mill*	**92**	**99**	**128**	**101**	**93**	**106**	**57**	**75**	**82**	**95**
Longline		*61*	*58*	*74*	*59*	*63*	*95*	*51*	*63*	*61*	*47*
Purse seine		*31*	*41*	*54*	*42*	*31*	*10*	*6*	*13*	*21*	*49*

***Notes: a**. Domestically flagged and locally-based foreign charters, obtained from SC annual reports. Catch data from SPC CES dataset and values of catch from FFA values tables.*


CA Health Officer